Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098
Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft
Website: htttps://himanshuvaidya.in

Himanshu Vaidya Profile

Highlights and Summary:

Having acquired rich experience as a Chief Architect and Principal Data Scientist, I am a Technology Evangelist and Visionary Researcher, working extensively in the fields of Big Data & Analytics, Machine Learning, Artificial Intelligence and Distributed Systems. Performed multiple Leadership Roles like Enterprise Data Architect, Big Data Solution Architect and Principal and Chief Data Scientist throughout my career.

Delivered Roles of Practice Head for Technology Practices like Engineering Analytics, Edge ML, Data Engineering, AI, ML and Data Architecture. Also worked as India Head for Big Data and AI while managing responsibilities for P&L for Big Data and AI of Globant, India. Trained on Finance for Non-Financial Leaders for the same and managed P & L responsibilities for close to 2 years with revenue management for close to 30 M USD per annum.

I have unique expertise in academia and industry in the research and innovation space. After pursuing R & D and Product Development for several years in both these sectors, I am ready to apply my understanding in multiple technologies for the benefit of the Business and mankind in general.

Have worked on several international research projects and products that involved working on:

1. International telescopes in the field of Radio Astrophysics and Cosmology,
2. Informatics & Robotics systems in Global R&D centers of fortune 100 MNCs, and
3. International R&D projects involving Applied Statistics and Applied Software Engineering.

Currently I am working as an Engineering Leader (Senior Director of Engineering) in Altimetrik, delivering a senior strategic role in business and technology leadership that spans from data and AI to product and platform engineering and architecture. This is a global role involving multiple business and technology domains, showcasing thought leadership, and end to end ownership of IT Business in Data and AI from Bootstrapping to Consistent Delivery. Brought in New Business from multiple Global Customers with total revenue pitched in 10 months equal to 7 M USD. Delivering similar responsibilities from more than 7 years in the recent past.

Have architected several platforms and products and have touched all granularities of software architecture starting from low level design, high level design, technical architecture, solution architecture, and enterprise architecture.

With this expertise in both software product development and data intensive systems development, I have developed software solutions that involve a combination of skills in data sciences, machine and deep learning along with deploying such solutions on - on premise, on cloud and hybrid systems.

R&D, AI and Next Generation Technology Experience:

1. Developed an MVP for an Intelligent Chatbot for Medical Sales Representative with end-end ownership. This involved end to end AI solutioning for production-ready mobile front end facilitating intelligent communication between the Sales Users and the Backend AI Chatbot through cloud services on GCP.
2. Worked on High Throughput Research Informatics and Robotics for 2 years for Chemical Giant TDCC (The Dow Chemical Company) and automated Laboratory Informatics Workflows through Data and AI/ML technologies. This is an area with wide application in Pharmaceuticals related Manufacturing.
3. Participated in GE HealthHack in 2016 at Bangalore with an application targeted towards application of Computer Vision services to solve Intensive Care Unit Use Cases using AI-triggered alarm generation and response system for rural areas. Also participated in NASA SpaceApps Challenge 2020, Gravity 02

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

and Gravity 03 Global Hackathon competitions. Worked as an Advisory for Little Place Labs, team which won the Gravity 03 challenge. We developed Edge ML solutions for real time Satellite Image Processing.

4. Developed and managed a Big Data and AI product involving insights generation and recommendation systems for predicting candidate profiles with Job Descriptions.
5. Published multiple IPs in Engineering Analytics and Edge ML technologies to deliver go-to-market products and platforms involving ML/AI triggered analytics platforms targeted for multiple Business domains including Automotive, Healthcare, Industrial Automation and IIoT.
6. Architected and delivered multiple cloud Data Engineering pipelines involving architectural paradigms in Data Architecture like Data Lake, Data Lakehouse, Data Fabric, Data Mesh and Hybrid architectures. This involves mainly AWS and Azure cloud stacks.
7. Working as an SME in Quantum Machine Learning and Quantum Artificial Intelligence by teaching university students and faculties by delivering specialized lecture series in Quantum Computing and AI.

Links of Conferences/Recent Hackathons:

1. Participated in AICRA (All India Council for Robotics and Automation) GAISA (Global AI Summit and Awards) 2021, an International Summit and won a prize of “Excellence and Innovation in AI Education” on behalf of the PhD and Education work I am doing in the field of Quantum Computing: Conference conducted by AICRA at Vigyan Bhawan, New Delhi, India and sponsored by Niti Ayog, Government of India. Youtube Video Link: https://youtu.be/dguNCA39jbg
2. Received Professional Fellow Membership of All India Council for Robotics and Automation for 2021-2022.
3. Worked as a Resource Person for Faculty Training Program for VIIT Deemed University Faculties and conducted specialized lectures on ‘Emerging Trends in Quantum Computing’.
4. Designed a Dual Degree Bachelors in Engineering course with honors in Quantum Computing and a 6 months Elective course in Quantum Computing for B.E. and B.Tech. students of VIIT Deemed University. The syllabus designed by me got approved from UGC Committee
5. Working as a member of the Industrial Advisory Board of VIIT Deemed University since 2020
6. Worked as a Visiting Faculty for Quantum Computing Elective course for B.E. and B.Tech students from VIIT Deemed University
7. Conducted a 3-lecture series on Quantum Computing and Quantum Machine Learning as an eminent speaker in sessions organized by the Tensor Flow User Group (TFUG). LinkedIn Link: https://www.linkedin.com/posts/saneshashank_machinelearning-pune-quantumcomputing-activity-6870628006617001984-T7Q7
8. NASA Global Hackathon: NASA Space Apps Challenge 2020 (October 3, 4, 2020): Participated for the team ‘SenseTheSpace’: Website of the Solution: https://sensethespaceres.co/index.html
9. Conference Speaker (2019) at Pune Data Conference 2019: Topic: Open Standards in Big Data and Artificial Intelligence: https://youtu.be/w9PVlwpZIxY
10. Hands on Introduction to Quantum Machine Learning: https://1point21gws.com/machinelearning/pune/
11. **Links of International R&D projects:**
    - Semi-automatic Identification, Extraction and reuse of Software Components: http://www.kmu-devise.de/

Automatic Identification of Concurrency Anti-patterns for Multi-core Programming Environments: http://qualicore.fzi.de/

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft
Email: himanshuscisoft@gmail.com
Website: htttps://himanshuvaidya.in

Primary and Special Skills:

Quantum Machine Learning	Evolutionary Algorithms	AI Architecture, Edge ML
Enterprise Architecture	Big Data on Cloud (AWS, Azure, GCP)	Hybrid Systems Architectures
AWS Sagemaker, Deep Learning on AWS, AWS Glue, Athena	Azure Data Factory, Apache NiFi, ATLAS, Ranger, Azure HDInsights, etc.	Airflow, Apache NiFi and MiNiFi, AWS Greengrass, etc.
Python pandas, scipy, numpy, tensorflow, pytorch, keras	Java Spring Batch, Apache Akka, BCEL for Java, ML in Java	Plugin development using Java, Refactoring of source code
Platform Architecture	Data Warehouse Design	Hadoop Technologies
Data Lake Pipeline Architecture	Static and Dynamic Analysis of Software Systems, Compiler Front-End	RDBMS, NoSQL Databases
Distributed Systems Architecture	Relational Database Design	Distributed Storage & Compute
Scientific Software Development	Multidimensional Data Modeling	Software Architecture and Design
Architectural and Design Patterns and Antipatterns	Data Intensive Systems Architecture	Microservices Architecture and Design
Intelligent Automation	Containerization Technologies	C, C++, Java, C#, Python, Perl, VC++
Lambda and Kappa Architecture	Real Time Systems Design	Kafka, Spark, Hadoop, Redis, etc.
Machine Learning Software Development	Distributed Deep Learning, Evolutionary Algorithms	Edge ML, Mesh Computing Architectures

Presented a Research Paper titled *'Integrated Solution Development using Modelling and Simulation: Industrial Approach'* at *National Conference on Modelling and Simulation: 2009* dated 16th Dec 2009 to 18th Dec. 2009 conducted by Defense Institute of Advanced Technology (DIAT - DU), Pune, India - an Institute of Defense Research and Development Organization, Indian Defense and attended the conference as an Industrial Participant.

Career and Skills Overview

Worked as a Technical Director and Chief Architect – Big Data, data Analytics and AI Technology Practices at Globant,Pune, India. Performing a Technical Leadership role of Technical Director and responsible for the growth of Big Data and AI practices in Globant EMEA centers. Also was responsible for contributing to niche projects in these technology areas by delivering as a Chief Architect and or Program Manager as and when required for multiple clients by providing solutions in these areas, and leading in-house product development in Big Data and AI.

Worked as a Senior Enterprise Architect for Distributed Systems Solution Development for a niche client of CapGemini in Industrial Automation that involves application of Distributed Consensus Algorithms and Frameworks for building a co-R&D product pipeline. This involves application on In-Memory Data Grid / Data Fabric, Open Standards like FDT and OPC-UA, IPC/RPC Mechanisms, Fault Tolerance and High

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

Availability Frameworks, Multi-threading, Actor Programming, Agent Driven Programming and Multi-Agent Systems Architecture and Design for developing Local and Global Agents similar to AI Bots.
Involved in developing a Cognitive Analytics Platform/Framework for Engineering Analytics. Involved in open-source standards for software (ISO 25010), data mining (PFA, PMML), predictive analytics, operations technology (BPMN), enterprise (TOGAF, ArchiMate) and software architecture (ADL, UML 2.0).

Data Science and Machine Learning Experience: Quantum AI Algorithms, Hybrid Quantum-Classical Neural Networks, Distributed Deep Learning, AutoML pipelines, ML Ops, AI Ops, Data Ops, Big Data on Cloud, Data Architectural Paradigms and Applications, Edge ML, Mesh Computing Algorithms, Software Product Engineering, Enterprise Data and AI Architecture, Graph Neural Networks, Symbolic Regression, Physics-based Deep Learning, Quantum Neural Networks, Evolutionary Algorithms, NVIDIA GPU for Deep Learning Model Development and Deployment.

Data Processing and Analytics: Developed software for Astrophysics data acquired from real-time data acquisition systems of 2 international telescopes: GMRT and ORT, TIFR. Hence possess understanding and hands-on expertise on Image processing and analytics. This includes FFT, Spectral Filtering, Grey Scale Analysis, Synthesis Imaging, High Resolution Spectroscopy, Noise Removal techniques and De-convolution Algorithms for Image improvement such as CLEAN Algorithm.

Big Data / Machine Learning Experience: The complete Hadoop Ecosystem including frameworks for Data Governance, Data Engineering in general, Data Lineage, Data Quality, Metadata Management, Graph Databases for Knowledge Representations, etc. Big Data on Cloud (AWS and Azure - new to GCP), Data Warehouse, Data Lake, Data Fabric and Data Mesh Architectures.

Work History

Company Name: Altimetrik, India. (Current Organization – 2,500+ Employees)
Location: (Pune, Maharashtra, India) (IT Services MNC)
Designation: Engineering Leader - Data and Analytics (Products and Platform Engineering)
Tenure: 25 Feb 2021 to till date

W*orking as an Engineering Leader (Senior Director of Engineering) in Product and Platform Engineering, with a strategic role in Data and Analytics. Performing a strategic role in Data Analytics and AI segments that involves bringing in new business in these areas with owning end-to-end responsibility of technology solutioning, client relationship management, people and technology leadership and management, thought leadership, product and platform delivery and execution, ownership of technology practices in data and AI.*

Company Name: Globant, India. (12,000+ Employees)
Location: (Pune, Maharashtra, India) (IT Services MNC)
Designation: Technical Director and (formerly India Head - till Feb 2020) Studio Leader – Big Data & AI Studios
Roles: Studio Leader, India Head – Big Data & AI Studios AND **Chief Architect – AI and Data & Analytics, Globant EMEA**
Tenure: 10 Oct 2018 to 19 Feb 2021 (2.5 years)

W*orked as a Technical Director and Chief Architect for Globant EMEA. Leading all Big Data and AI Technology Practices from Globant EMEA. Responsible for contributing to niche projects in these*

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

technology areas by delivering as a Chief Architect for multiple clients by providing technical solutions in these areas, along with leading a small team of Data Scientists, ML Engineers and Data Architects from Pune, Bengaluru, Belarus, Romania and UK. Working with the Client Partners, MDs, VP Sales from EMEA, APAC and US regions to provide Technical Pre-sales support to new business in Data & Analytics, AI and Distributed Systems. Demonstrated capability of new business development in these regions by growing India Team for Big Data and AI from 7 to 70 in number, and 100 for the EMEA region in the past 2+ years. This involves working as the Senior-most Technology and Solutions Architect and establishing Technology Partnership with Globant's niche clientele for specifically Data & Analytics, Big Data and AI. The practices that I am leading include Data Engineering, Data Science, Data Architecture, Business Intelligence (Data Integration + Data Visualisation), Pattern Recognition, Machine Learning, Deep Learning, Natural Language Understanding and Conversational AI (Chatbot development). The solutions include development & deployment of AI pipelines on Cloud platforms, Data Lake pipelines on Azure and AWS cloud stacks, Hybrid solutions to be developed involving reusing Cloud AI APIs on GCP along with custom ML/DL algorithms in the end-end pipeline, etc. Experience of working as a Thought Leader by demonstrating direct Business Impact by Technology & Innovation in the area of Data and AI, Distributed Systems and Platform Architecture and Development.

Company Name: CapGemini Technology Solutions Pvt. Ltd., India. (IT Services MNC – 1,90,000 Employees)
Location: (Pune, Maharashtra, India) (IT Services MNC)
Designation: Principal Architect
Role: Enterprise Architect
Tenure: 16 May 2016 to 8 Oct 2018 (Total Experience: ~2.5 year)

Worked on developing and managing solutions for on-device analytics for smart devices and intelligent products' development, thereby contributing to the annual vision and roadmap for the innovation and co-R&D initiatives of Product and Engineering Services BU of Capgemini.

Contributing technically to the cluster Head and VP for Energy and Utilities cluster who leads the Global Analytics Practice for Product and Engineering Services of Capgemini.

Developing Analytics solutions involving pattern recognition, advanced analytics using cloud computing, fog computing and edge computing technologies and frameworks.

Evaluation of Cloud Based Analytics Platforms like GE Predix, MS Azure, Amazon, Dynamo, IBM Bluemix Services like IOT, Spark, IBM BigInsights, Amazon EC2, Amazon EMR.

Enterprise Architecture using TOGAF, ArchiMate standards. Evaluated tool Archi and developed and Enterprise Solution, rather a product from scratch for Cognitive Analytics and Artificial Intelligence applicable for Engineering Analytics problems in Operations Technology (OT).

Thorough understanding and hands-on experience in open source Java and Scala frameworks for PMML, PFA. JPMML, RtoPMML, and all JPMML frameworks for SparkML, etc., Hadrain, Aurelius, Titus, Open Scoring for Analytics.

Analytics Model development for Predictive Asset Health Maintenance and Analytics Operations and Deployment for a spectrum of analytics workflows.

Workflow Modeling Languages (YAWL – Yet Another Workflow Language)

.XML, JSON, Avro Parser, YAML (Yet Another Mark-up Language), etc. used in Open Standards like PMML, PFA, BPMN.

Research work: Framework Evaluation and development, Cloud Computing Software Frameworks based on Microservices Architecture, Hadoop, Spark, Kafka, Samza, and other Big Data Frameworks,

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

Architectural trade-offs in product development and deployment, RDBMS vs NoSQL like Cassandra vs IN-memory DBs like MemSQL vs Graph DBs like Neo4j. Automated Migration of Analytics Solutions developed on in-premise systems to generic Analytics Solutions on Cloud based on Micro-services architecture.

Technical and Management Responsibilities: Enterprise Architecture for Cognitive Analytics and Artificial Intelligence related product development applicable to the wider Product and Engineering Services vertical(s) across CapGemini in order to solve Engineering Analytics Business Problems via innovative product development that addresses IT-OT integration problems. Solution Architecture for Cloud Computing solutions. Product Architect for innovative platform and framework development.

Company Name: Acellere Software Pvt. Ltd. (German Product Startup - 50 Employees)
Location: (Pune, Maharashtra, India) (German Start-up IT MNC)
Designation: Sr. *Engineering Lead*
Role: Sr. *Technology Consultant*
Tenure: Aug 2011 to July 2013, April 2014 to May 15 2016 (Total Experience: 4+ years)

Refactoring Legacy Code Bases using innovative techniques: executing TDD, Refactoring to improve the design of code, Design Refactoring, Refactoring to Patterns, Dependency Analysis, Call Graph Analysis, Trace flow analysis of program execution traces. – Working on consulting assignment for a reputed Fortune 100 MNC Client in Oil and Gas domain, for huge code base for Data Acquisition and Analysis of Geological and Seismic Data.

Assessment of Software Systems using innovative Code Analytics Method. This involved software for Cloud Computing, Investment Banking, Aerospace, Defense & Security domains.

Assessment and evaluation of Coding Guidelines and their Tailoring for reducing total lifecycle costs by correlating it with maintainability value drivers. – as per ISO 25010 standard.

Full ownership responsibility for development and management of Acellere part involved in DEviSE and Qualicore project(s) funded by the German Defense that involve high-end research and product development related to i) reusable components detection, extraction and usage, and ii) predictive analytics for performance based Static and Dynamic Analysis of software systems, respectively.

Research work: Clone Visualization & Management, Candidate Component Extraction using intelligent Code Refactoring techniques, Code Analytics Development using Statistical Pattern recognition to enhance overall quality, maintainability, performance, & other attributes critical for software systems, Tailoring of these attributes based on Business Value Drivers, Predictive Analytics research for Performance Analysis of software systems involving Pattern Recognition, Data Mining using a combination of Software Static Analytics (Software Metrics, Object-oriented Anti-patterns, Code Duplication Analysis, Design Patterns recognition, etc.) & Dynamic Analytics techniques [Profiling (Performance Tuning), Communicating Sequential Processes (CSP), Deadlock Detection, Recovery, Avoidance - Removal techniques, Performance & Concurrency Anti-patterns, Data Races & Race Conditions, Mutation operators, Dynamic Metrics, etc.].

Management Responsibilities: Managing High-end Technology Projects by interacting with internal and external customers during the product development lifecycle, contributing for technical help required to HR and Executive Management needed for various activities like product sales, recruitment, expansion of Business Units via Joint Ventures & Research Collaborations with Internationally reputed research institutes and Global corporates, Managing Product Development.

Company Name: Persistent Systems Ltd. (IT Services MNC) (Strength: 7500 Employees)

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098
Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft
Website: htttps://himanshuvaidya.in

Location: (Pune, Maharashtra, India) (Indian IT MNC)
Designation: ***Sr. Technical Specialist***
Role: ***Solution Architect***
Tenure: Aug 2013 to March 2014 (Total Experience: 7 months)

Requirements Gathering and Analysis of the product to be developed: Analysis of existing ETL technologies and tools, Java/J2EE application framework exploration and testing for Messaging, Data Integration, Caching, Batch Processing, Parallel Processing, Performance Optimization, Security, Multi-tenancy and Fault Tolerance.

Architecture and Design of the Proposed Solution: The framework developed involved some known best practices in Batch Processing, Messaging and Data Integration space. The solution addresses data storage, retrieval and migration problems that involve data volumes of TB level and higher, and has a varied set of migration windows.

Product development for innovative solution in the area of *Enterprise Collaborations* offered as a service to Global clientele.

Worked as 'Architecture Owner' in the Agile Development Life Cycle.

Research work: Streaming API for data migration (exploring HTTP long polling - Comet, streaming and Web sockets), Designing a generic solution to address the problem of Large-Size Data Migration integrable with existing Social Networking Product.

Management Responsibilities: Managed High-end Technology Projects by interacting with internal and external customers during the agile product development lifecycle.

Company Name: Dow Chemical International Pvt. Ltd., India (Fortune 100 MNC - 50000 Employees)
Location: (Pune, Maharashtra, India) (Research Laboratory IMEA Division of largest Chemical Company in the world)
Designation: Sr. ***Research Specialist (Sr. Research Computing Analyst – R&D)***
Tenure: Feb 2007 to Feb 2009 (Total Experience: ~2 years --- **2 months On-site**)

Worked as a senior researcher and developer (first hire in India Research Computing Team) as a part of the Global R & D Centre of Dow Chemical Company (TDCC) at Pune, India.

Acquired experience of working in a Global R & D Centre with scientists from diversified backgrounds. **Worked on multiple platforms and systems**.

Successfully completed 2 months of intensive training at the **On-site** --- United States R & D Head Quarters of the Company on High Throughput Research (HTR) **Informatics** and **Robotics** including Job Shadowing in these areas. I have an exposure to Materials Modelling as well.

Was assigned responsibility for research computing support in a wide domain in multidisciplinary R & D. Worked as a part of the Informatics Team for R & D.

Played a **Key role in designing, developing software applications for HTR Informatics and Robotics**.

Worked in multidisciplinary teams for developing software for High Throughput Research.

Worked on 6 Global informatics projects for R & D (used agile methodology) along with few other fruitful interactions with Researchers in Materials Sciences and Chemistry.

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

Institute Name: National Centre for Radio Astrophysics, (NCRA), TIFR, India
Location: (Pune, Maharashtra, India) (Research Laboratory) (300 employees)
Designation: ***Project Trainee***
Tenure: June 2002 – July 2005 (Total Experience: 3+ years)

Research Work in the field of Radio Astronomy at National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR):
Written acquisition, analysis software in **C-Linux OS** Platform for **high-end research** in **Radio** Astronomy and **Space Science**.
Worked for a month at Radio Astronomy Centre (RAC), Ooty, TIFR. Written C Programs for generating the Temporal Power Spectrum for Interplanetary Scintillation (IPS) Time Series Data obtained using the Giant Meter-wave Radio Telescope (GMRT). Studied radio-wave propagation through celestial plasmas. Was associated with NCRA working with Senior Scientists at TIFR, Pune and Ooty Centers, India and PRL, Ahmedabad, India on the Project named 'Structure of Extragalactic Radio sources using Interplanetary Scintillations (IPS)'.
Possess understanding of using this technology (IPS) for online monitoring of Solar wind from ground-based Telescope observations and synchronizing it with monitoring from Space probes or Solar Spacecraft.

Project Work:-1) **Mathematical Modelling** and model-fitting for estimation of Structures of a large number of radio sources. (Using Graphics in C) 2) Taking Interplanetary Scintillation (IPS) observations using the Giant Meter-wave Radio Telescope (GMRT): writing software in C on Linux Platform for acquisition and analysis of IPS data.

Global R&D Certifications / Certifications on Software Technologies:

- NVIDIA DLI Certification "Fundamentals in Deep Learrning": course completed in November 2021. DLI C-FX-01 Certificate | Deep Learning Institute (nvidia.com)
- NVIDIA DLI Certification "Building Transformer Based Natural Language Processing Applications": course completed in November 2021 DLI C-FX-03 Certificate | Deep Learning Institute (nvidia.com)
- NVIDIA DLI Certification "Fundamentals of Accelerated Data Science with RAPIDS" course completed in March 2022. Certificates – NVIDIA
- NVIDIA DLI Certification "Applications of AI for Anomaly Detection" course completed in March 2022. https://courses.nvidia.com/certificates/65ceb58334bc45fba47a00f5825daadb/
- Practical Data Science using AWS Sagemaker - Amazon Training Certificate, Sept 2020
- Deep Learning on AWS - Amazon Training Certificate, Nov 2020
- Artificial Intelligence and Quantum Computing - International Virtual Conference
- Certificate of Participation for participating as an Industrial Participant in National Conference on Modelling and Simulation:2009 (NCMS:2009) conducted by Defense Institute of Advanced Technology (DIAT - DU), a Govt. of India affiliated Deemed University, formerly an institution of Defense Research and Development Organization (DRDO), Indian Defense.
- Certificate for successful Paper Presentation in NCMS: 2009 for research paper titled *"Integrated Solution Development using Modelling and Simulation: Industrial Approach"*.
- VB.NET, ASP.NET Training from AppDev, USA at The Dow Chemical Company (TDCC) R&D HQ at Midland, Michigan, USA.
- Symyx Client, Symyx Developer Corporate Training from SYMYX Corporation conducted by Research Computing Core R&D Division, TDCC at TDCC R&D HQ at Midland, Michigan, USA.
- Job Shadowing and hands-on experience on High Throughput Research Technology in Informatics, Robotics and other Research Computing areas such as Data Analysis and Visualization, Integration

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

Technologies, Advanced Application Programming and Database Technologies, High Performance Computing support.
- Microsoft Certification Corporate Trainings: VB.NET & ASP.NET from SEED Infotech, Pune.
- WPF & WCF Corporate Training by Microsoft, USA during employment with TDCC.
- Various HR Trainings on Team Management, Effective Communication Skills, Leadership, Innovation and other soft skills successfully completed at TDCC.

Education Details: (Grades converted to GPA in some cases to meet international standards)

Pursuing Ph.D. in Quantum AI and Astrophysics from The Christ University

Pursuing Joint Certification on AI and Quantum Computing from IISC, Bangalore

PG Diploma: *Post Graduation in Advanced Computing (PGDAC)*
Institute / University: Centre for Development of Advanced Computing
Location: (Pune, Maharashtra, India)
Status: *Graduated* (Feb 2006)
Grade: 6.80 GPA (68.09%) **A+ Grade >85% in Project**
Major: Database Technologies Concentration: Distributed Databases 8.3 GPA
Major: C++ and Data Structures Concentration: Advanced Data Structures 8.3 GPA
Major: Operating System Concepts Concentration: Next Generation Operating Systems 6.6 GPA

PG Degree: *Masters of Science (Space Sciences)*
Institute / University: Department of Atmospheric and Space Sciences, University of Pune
Location: (Pune, Maharashtra, India)
Status: *Graduated* (June 2005)
Grade: 5.90 GPA (56.67%) **7.33 GPA in Live R&D Project**
Major: Astronomy and Astrophysics Concentration: Radio Astrophysics 8.0 GPA
Major: Space Dynamics Concentration: Modelling and Simulation 7.0 GPA
Major: Solar Physics and Space Plasmas Concentration: Solar System Astrophysics 4.5 GPA
Minor: Fundamentals of Remote Sensing Concentration: Sensor Modelling and Satellite Data Analysis 5.0 GPA
Minor: Fundamentals of Earth and Atmospheric Sciences Concentration: Geophysics 5.0 GPA
Minor: Mathematical Methods & Computational Techniques Concentration: Applied Mathematics 4.5 GPA

Bachelor Degree: *Bachelor of Science (BCS)*
Institute / University: S. P. College (Pune, Maharashtra, India)
Status: Graduated (Dec 2002)
Grade: 5.00 GPA (50%)
Major: Computer Science Concentration: Theoretical Computer Science & Systems Analysis and Design 5.0 GPA

Additional Notes

Other Specific Skills:

Learnt Applied Physics, Space sciences, basic Astronomy, Astrophysics and Cosmology.
Can play any Keyboard instrument. Understand details in musical instruments from scientific perspective and possess the ability to develop technology for Music Signal Analysis using Computerization and Electronics.

Learnt Indian Classical Music since childhood, hence possess the ability to make fusion of Indian and Western Classical Music.

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

Achievements in Extracurricular activities:

Actively Participated in Science Popularization programs like National Science Day (28th Feb) Celebration at GMRT site, TIFR. Demonstrated benefits of science and technology to students and the general public.
Conducted workshops on science awareness in schools.
Constructed an Optical Telescope of 12-inch diameter with 2 friends (Team of 3 members) for Amateur Astronomical Observations, for nurturing our hobby of sky gazing.
Taught Physics to students for NDA/CDSE National Entrance Examinations.
Played and won many University, State and National Level CHESS competitions.

1st Prize in Pre-Military Training Camp - *Hanuman Vyayam Prasarak Mandal*, (M.S), India.
Hobbies: Practice and perform vocal, instrumental (Harmonium) Indian Classical Music, Practicing Meditation, Reading 'Indian Philosophy'.
Areas of Interests: Playing Chess, Table Tennis, Football, Swimming, Drawing/Painting.

Appendix A: List of Innovations / IPs/ Conferences / Hackathons

Links of Conferences/Recent Hackathons:

- Participated in AICRA (All India Council for Robotics and Automation) GAISA (Global AI Summit and Awards) 2021, an International Summit and won a prize of "Excellence and Innovation in AI Education" on behalf of the PhD and Education work I am doing in the field of Quantum Computing: Conference conducted by AICRA at Vigyan Bhawan, New Delhi, India and sponsored by Niti Ayog, Government of India. Youtube Video Link: https://youtu.be/dguNCA39jbg
- Received Professional Fellow Membership of All India Council for Robotics and Automation for 2021-2022.
- Worked as a Resource Person for Faculty Training Program for VIIT Deemed University Faculties and conducted specialized lectures on 'Emerging Trends in Quantum Computing'.
- Designed a Dual Degree Bachelors in Engineering course with honors in Quantum Computing and a 6 months Elective course in Quantum Computing for B.E. and B.Tech. students of VIIT Deemed University. The syllabus designed by me got approved from UGC Committee
- Working as a member of the Industrial Advisory Board of VIIT Deemed University since 2020
- Worked as a Visiting Faculty for Quantum Computing Elective course for B.E. and B.Tech students from VIIT Deemed University
- Conducted a 3-lecture series on Quantum Computing and Quantum Machine Learning as an eminent speaker in sessions organized by the Tensor Flow User Group (TFUG). LinkedIn Link: https://www.linkedin.com/posts/saneshashank_machinelearning-pune-quantumcomputing-activity-6870628006617001984-T7Q7
- NASA Global Hackathon: NASA Space Apps Challenge 2020 (October 3, 4, 2020): Participated for the team 'SenseTheSpace': Website of the Solution: https://sensethespaceres.co/index.html
- Conference Speaker (2019): Open Standards in Big Data and Artificial Intelligence: https://youtu.be/w9PVlwpZIxY
- Hands on Introduction to Quantum Machine Learning: https://1point21gws.com/machinelearning/pune/

High Throughput Research (HTR) Informatics and Robotics - Sr. Research Computing Specialist with The Dow Chemical Company Global R&D Center (Midland, MI, USA).

- Worked on maintenance of Robotic Infrastructure & Informatics related Application Development & Support for Automating Experimental Workflows in the Laboratories for Formulation Sciences & Catalysis Synthesis.
- Disciplines involved: Data Mining and Visualization, Multi Dimensional Data Modeling, Data Warehousing, Custom Algorithms for Pattern Recognition in Images for HTR Research, Chemometrics, Experimental Design, Software Development for Automating Laboratory Workflows, Support for HPC facility for Scientific Simulations, etc.

Developed advanced data analytics and acquisition software on 2 international telescopes for - The Giant Metrewave Radio Telescope and The Ooty Radio Telescope, facilities of TIFR, Govt, of India.

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

- Conducted IPS (Interplanetary Scintillations) observations using:
  - Aperture Synthesis Radio Telescope like GMRT used as both an incoherent array as well as phased array and Ooty Radio Telescope (Array)
- This software included developing Data Acquisition, Noise Filtering (for both Narrow Band and BroadBand Radio Frequency Interferences using FFT and Gaussian Filtering) and Analytics modules in Predictive Analytics (2D Mathematical Models - Double Gaussian and Core Halo used for Image Classification and Analysis). Overall outcome was a classification of 452 Radio Sources into these two Structure Estimates in 2D Imaging.

Developed a Federated ML like Engineering Analytics Framework from scratch (concept to delivery, production, branding and launch):

- Published IP (internal Copyright of CapGemini) for the Framework within CapGemini, work was done as part of the Analytics Center of Excellence of CapGemini
- Was awarded as the best Innovation project of the year and CG launched a suite of Engineering Analytics Services on top of the Framework (as an accelerator - internal copyright of CG)
- This project was similar to the AWS SageMaker Platform initiative of Amazon, but very specific to Engineering Analytics domain

Lead team of Engineers for developing innovative algorithm(s) in Mesh Computing, Object Detection, and Service Oriented Architecture at the Edge using a Cluster of Raspberry Pis (RPi).

- Includes work related to low latency constraints imposed on services-failure detection and recovery in a cluster of RPi-Like devices, where compute and storage resources are limited.
- Proposed 3 architectures in the space:
  - Custom Solution using Custom Algorithms and Services, explored paxos, raft, multiraft
  - De-centralized architecture for Failure Recovery utilizing Redis Cluster deployed on RPis, communicating with custom implementation for Failure Detection
  - Completely Distributed Architecture using PhxPaxos framework for Failure Detection and Recovery

Also worked extensively on developing Predictive and Prescriptive Analytics solutions for Asset Prognostics (Predictive Asset Health Prediction) for Heavy-Vehicle Equipment in the Mining and Oil and Gas Industry.

- This included large scale batch and micro-batch data.
- Implemented Advanced Analytics Algorithms are listed below:
  - Time Series Forecasting Algorithms were implemented (ARIMA and its variants, Advanced Regression techniques including Fourier Analysis)
  - Long Short-Term Memory (LSTM) algorithms and other Neural Network algorithms to convert the problem from supervised to unsupervised learning
  - Optimised these algorithms for edge analytics or edge AI implementations for deployment of these solutions at the edge

Infrastructure Agnostic next generation Data Platform development. Was responsible for architecting end-end data pipelines and ML workflows (using Federated ML) for:

- Trust and Safety, Data Security for Trust,
- Data Acquisition, Ingestion and Migration,
- Automatic Metadata Extraction and Storage using Deep Learning Algorithms to scan documents, and
- Metadata Management.

Executed multiple R&D projects in below areas:

- Chatbot Development
- Video Analysis - Pattern Recognition using a mixture of custom ML and Cloud Services
- Music Signal Analysis and Pattern Recognition (Analysis using Fourier transforms and Wavelet Transforms)
- Edge AI - Optimization of algorithms at the edge for pattern recognition
- NMT like AI Architectures for solving complex Business Problems specific to respective domains: Analysis of corpus and limitations of models and training, leveraging existing architecture and designs to address problems

Overall Experience: 19 years
Candidate Name: Himanshu Vaidya
Mobile: +91 9168262985 / 8999976098 Email: himanshuscisoft@gmail.com
LinkedIn Profile: https://www.linkedin.com/in/himanshuscisoft Website: htttps://himanshuvaidya.in

in Pharmaceuticals and Healthcare, Material Science, Geosciences (Oil and Gas and Mining), and Astronomy, Astrophysics and Space Sciences.

Contributed to an AI product from scratch in the space of Code Analytics:

- Lead 2 international R&D projects:
  - Reusable Components identification, extraction, analysis and visualization by developing a tool chain: http://kmu-devise.de/index.php/en/partner/23-acellere-gmbh
  - Detection of Concurrency Antipatterns by developing a tool chain: http://qualicore.fzi.de/index.php/partner
- Static and Dynamic Analysis of Software Systems
- Architecture and Design Consultancy to a Oil and Gas MNC's Geophysics Laboratory, and for their multiple niche products
  - Involved automatic detection of software metrics, design anti patterns, architectural patterns and anti-patterns, etc.
  - Identification of above patterns using Graph Modeling, and implementing algorithms on top of a Unified Dependency Graph of a software system

Worked for a European Aerospace Giant for an R&D project in Software Engineering Standards for Mission Critical Systems Development

- This work involved all granularities of software engineering, from coding, testing, validation and verification, static & dynamic code metrics, software design patterns and anti-patterns, software architectural patterns and anti-patterns, software clone analysis, custom patterns in the software
- The work focused on devising specific standards tailored for mission critical software and systems requirements which considered benchmarking with respect to some key ISO/IEC Standards (9126, 25010)

Presented a Research Paper titled ‘Integrated Solution Development using Modelling and Simulation: Industrial Approach’ at National Conference on Modelling and Simulation: 2009 dated 16th Dec 2009 to 18th Dec. 2009 conducted by Defense Institute of Advanced Technology (DIAT - DU), Pune, India and attended the conference as an Industrial Participant.