

# SAURADEEP PAUL

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## ◉ INDUSTRY EXPERIENCE

**Member of Technical Staff 4** | Nutanix, San Jose (September 2021 – Present - 6 months)

- Currently working in the subscriptions and billings team and working on the code to implement and maintain code in Node
- Prioritizing optimization of database and API performance and Implementing testing and logging protocols in the system
- Working with multiple teams to handle operational issues; also working on improving the ops process

**Software Development Engineer** | Amazon, Palo Alto (February 2020 – September 2021- 1 year and 8 months)

- Worked at Amazon A9 in the advertising technology on supply path optimizations and currently focussing on payments
- Built and created a Native AWS microservice (using Lambda, CloudWatch, S3, etc.) and integrated it with a non-AWS service
- Worked with Java, Ruby, React on building an end to end payments portal (BE and FE) to handle payments for ad publishers
- Designed and worked on streamlining, adding tests and automating a BE pipeline for continuous deployments
- Handled operational issues as part of two on-call rotations and remedying high severity issues linked to adtech systems
- Worked on and designed multiple projects including changes to handling ad requests due to privacy regulations in the EU

**Software Development Engineer Intern** | Amazon, Palo Alto (May 2019 – Aug 2018 - 3 months)

- Worked at Amazon A9 in the advertising technology department as an SDE Intern; involved closely working with other subteams
- Used Java, Python, SQL and other internal tools for extracting data and analyzing it; included using many data science concepts
- Developed an algorithm to filter and tag streaming data in real time to be used as shippable code for supply path optimization

**Software Engineer** | JioSaavn (Formerly Saavn), Mumbai (Jul 2016 – Jul 2018 - 2 years and 1 month)

- Implemented UI/UX features on Android in Java with the design and product teams using Agile; drove up usage/retention by 10%
- Enforced data security and thread safety; optimized power, memory, data usage; improved GPU performance on feedback regarding power, memory, UI stuttering issues; modularized the design pattern of the code; increased app rating by two points
- Introduced network features like websockets for improved connectivity; incorporated both in-house & third party RESTful APIs
- Migrated the architectural pattern from MVC to MVVM; reduced code maintenance and debug times considerably

## ◉ ACADEMICS & EDUCATION

**M.S. (Conc. in Data Science), Computer Science**, State University of New York at Stony Brook, **GPA: 3.6** (Aug 2018 - Dec 2019)

*Courses:* Artificial Intelligence, Computer Graphics, Compiler Design, Big Data Analytics, Visualization, Computer Vision

**B.Tech., Electrical Engineering**, Indian Institute of Technology (IIT) Ropar, India (Aug 2012 - May 2016)

*Courses:* Natural Language Processing, Computer Architecture, Embedded Systems, Computer Networks, Data Structures

## ◉ SOFTWARE SKILLS

**Languages & Scripts:** Java, Python, JavaScript, Ruby, PHP, C++, HTML, XML, CSS, MySQL, PostgreSQL **Tools:** OpenGL, Git, SVN, Vim, IntelliJ, Jupyter, AWS, Kubernetes **Frameworks:** Angular, jQuery, Bootstrap, Node, Apache Spark, React, Ruby on Rails

## ◉ ACADEMIC PROJECTS

**Scatter plot quality evaluation:** Graduate project that involved evaluating the scatter plot quality of visualized data

- Looked into visual separation measures by using class purity evaluation and neighborhood selection using proximity graphs

**Tracking Non Fluencies using streaming algorithms:** Tracked non fluencies in a big data set of tweets mapped to location

- Used a bloom filter, MapReduce and Flajolet-Martin algorithm to approximate the number of distinct phrases in Apache Spark

**Sketch based Procedural Terrain Generation Using OpenGL:** Generated terrains procedurally within constraints defined by user

- Allows the user to sketch boundary, silhouette and spine curves; the noise from the curves is propagated to the surrounding areas

**AI based Games:** Implemented informed state-space search techniques algorithms to build rational pacman and tic-tac-toe agents

- Introduced depth limited minimax search algorithms with pruning to predict adversarial moves and applied inference methods.

**Skin Disease Detection using Image Processing:** Developed an image processing program in Matlab to identify skin syndromes

- Utilized basic neural networking and filters to identify diseases from a database with 70% accuracy for around 15 ailments

## ◉ PERSONAL PROJECTS

**Various Android Apps:** Developed multiple Android apps available on the Google Play Store and Amazon (250,000+ downloads)