Message by AIM Guest Speaker, Inspiring National Sports Player and Inner Wheel District Chairman – **Mrs. Gauri Dhond**

"Let's empower ourselves and evolve as great social power to help the society. Take time to live because, the world has so much to give! Let's work caring for women and girls!

Student Achievements

- 1st Rank in University Examinations
- 1st Prize in University Research Competition - Avishkar
- 1st Prize in University Youth Festival - Yuvarang
- 1st Prize in Software Competition
- 1st Prize in IT Quiz
- 1st Prize in Programming Contest and many more achievements !

Student Team
• • •

Shilpa Gundiyal
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"Mrudgandha" the welcome function @ AIM

DESPORTO 2K19

Alumni Meet 2019

Alumni Meet 2019

Alumni Meet 2019

Participation in Youth Festival "Yuvarang" 2018-19

Participation in "SPARX 2018-19" State Level Competition conducted by Mumbai Education Trust's Bhujbal Knowledge City

उत्तर महाराष्ट्र विद्यापीठाचा इतिहास

- तुषार पाटील आणि निधी पाठक , बी.सी.ए.

उत्तर महाराष्ट्र विद्यापीठाचे नामांतर झाले " **कवीयत्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ "**.

पुणे विद्यापीठातुन १७ ऑगस्ट १९९० रोजी जळगाव, धुळे नंदुरबारसाठी उत्तर महाराष्ट्र विद्यापीठाची स्थापना करण्यात आली. सुरुवातीला जळगाव आय टी आय मधील एका खोलीत विद्यापीठाचे कामकाज पाहिले जात असे. यानंतर प्रथम कुलगुरु **प्रा.डॉ.एन.के.ठाकरे** यांच्या मार्गदर्शनाखाली ' **उमविची** ' घोडदौड सुरु झाली. सुरुवातीला ग्रामीण भागातील विद्यापीठ म्हणुन ओळखले जाणारे उमवि आज शैक्षणिक गुणवत्तेत पुणे, मुंबई विद्यापीठाच्या पंगतीत जाऊन बसले आहे. साधारनतः २०१४ मध्ये पुणे विद्यापीठाचे सावित्रीबाई फुले पुणे विद्यापीठ असे करण्यात आले, हे नामकरण झाल्यानंतर उमविचे पण बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ करावे अशी मागणी करण्यात आली ती २०१५ मध्ये आणि १५ ऑगस्ट २०१८ रोजी उमविचे नामांतर झाले.

कवीयत्री बहिणाई चौधरी-

कवीयत्री बहिणाबाई चौधरी यांचे जन्मगाव जळगाव जवळील आसोदा. लग्न झाल्यावर त्या सासरी अर्थात जळगावला आल्या . बहिणाबाई या स्वतः निरक्षर होत्या . मात्र त्यांच्याकडे प्रचंड मोठी प्रभातशक्ती होती . घरातील शेतातील कामे करतांना काव्यात्मक स्वरुपात लेवा गणबोली आणि अहिराणी बोली भाषेत त्यांनी निसर्गाचे , मानवी जीवनाचे तत्वज्ञान सांगितले. त्यांचे पुत्र, प्रसिध्द कवी सोपानदेव चौधरी यांनी त्या लिहुन ठेवल्या . एकदा आचार्य अत्रे यांना हस्तलिखीत कवीता दाखविल्यानंतर साध्या-सरळ बोली भाषेत मांडलेले मानविजीवनाचे सार समाजापुढे यायलाच हवे . असे अत्रे यांनी सांगितले . नंतर त्यांच्याच पुढाकाराने बहिणाबाई यांच्या मृत्युनंतर यांच्या ७० कवीता प्रकाशित झाल्या अरे संसार संसार , अरे खोप्यामधी खोपा , मन वढाय वढाय या आणि या सारख्या अनेक कविता अभ्यासक्रमात शिकवल्या जातात.

अरे खोप्यामधी खोपा
सुगरणीचा चांगला ,
देखा पिलासाठी तिनं
त्याले झाडाले टांगला.

पिल्ल निजली खोप्यात
जसा झुलता बंगला ,
तिचा पिलामधी जीव
जीव झाडाले टांगला.

तिची उलुशीच चोच
तेच दात तेच ओठ ,
तुला देले रे देवानं ,
दोन हात दहा बोट .

Sharpen Your Axe!!

John, a woodcutter, worked for a company for five years but never got a raise. The company hired Bill and within a year he got a raise. Then John resented Bill's getting a raise after only one year and went to his boss to talk about it.

The boss said, "You still cut the same number of trees you were cutting five years ago. We are a result oriented company and would be happy to give you a raise if your productivity goes up". John went back and started hitting harder and putting in longer hours but he still wasn't able to cut more trees! He went back to his boss and told him his dilemma.

The boss told John to go talk to Bill. "Maybe there is something Bill knows that you and I don't." John asked Bill how he managed to cut more trees.

Bill answered, "After every tree I cut, I take a break for two minutes and sharpen my axe. When was the last time you sharpened your axe?" When was the last time you sharpened your axe? Past glory and education don't count much. We have to continuously sharpen the brain.

- Shilpa Gundiyal, MMS(C.M.)

SHAYARI

1 . दरिया हो या पहाड़ हो टकराना चाहिए ,

जब तक न साँस टूटे जिए जाना चाहिए..

2. अपनी तलाश अपनी नज़र अपना तजरबा ,

रस्ता हो चाहे साफ़ भटक जाना चाहिए..

3. ये जरूरी नही है साहब...

की रोशनी दिए से ही हो ।

बेटियों से भी घर मे उजाला होता है...।

4. आंधियों में भी जो जलता हुआ मिल जायेगा ,

उस दीये से पूछ लेना ,पता मेरा मिल जायेगा ।

- Chinmay Daflapurkar, BCA

Journey of Campus Interview

- Shilpa Gundiyal, MMS(C.M.)

I still remember the day when we were forced to fill the application form for Campus interview.

And I was…..not that INTERESTED for appearing in interview but somehow was convinced by my friends. Truely speaking, I wasn't prepared at all for interview, but I have rule in my life no matter how ready I am for the things I try to be best of me.

For the 1st phase we had online test on fundamentals of computer and general aptitude. I remember we all studied together and you can imagine how it goes when we are group studying. And that was all I did prepared myself for my very first interview!! Finally Day came when we all started for the journey and we had interview in Shirpur. We had an online test in 1st phase of interview and anyhow 3 of us got selected (that was unexpected) and we started preparing for 2nd phase of interview that consist of 3 rounds

1. Technical Round
2. Managerial Round
3. HR round

I always get a huge laugh on my face whenever I remember, that Instead of going through technical aspect for my 2nd phase of interview I was Googling on quora about HR round!! Knowing I won't be able to attend HR round if I wasn't get selected in technical round.!!

Finally that day arrived…… A Day before interview our director said "Madam select hoke aana hai..!!" ,his lines were like attacking my mind….while we were travelling to Shirpur for 2nd phase.

There was a huge queue……no one knowing each other, finally my no. Was announced and was called for interview…I little scared,with shivering hands but with positive smile, greeted interviewer and took a chair…!

My cousin who was already working in TCS, told me.. "just speak truth no matter what is asked..".And it really worked. It took nearly 40 mins and I was directly called for documents verification. That means no more rounds.I was little scared whether I am selected or rejected because everyone out their was suppose to attend all three interview rounds and

why am I Called directly for documents verification..??? A lot of questions started in my mind.

As during interview I was asked few technical questions and and I was able to answer just few questions. As it happened many times that I was not able to answer few of their questions but I confidently asked interviewer a chance to try. And that was the thing he

liked about me. With fully confused mind I went to Kamal digarse(HR POC) and asked M I not applicable for further rounds.??

He replied…. your interview is done…...you will be receiving confirmation letter if you are selected.

I was preety sure I won't be selected at all,but……….I got selected and received joining letter for 19th oct 2017.

That day I learn't one thing…..

Your APPTITUDE dosen't matter, but your ATTITUDE does..!!!

And I really want to thank My college for observing that quality in me and letting me appear for interview.

Ilunga: Illunga is a Bantu word. This is chosen as the world's most difficult word to translate. In Bantu it refers to a person willing to forgive in the first time, tolerate it the second but never a third time. English it is tolerant to a point.

Kyoikumama: This is a Japanese word. This literally means education mother or stereotype of mother. This word has no exact equivalent meaning in English.

Tingo: It comes from Easter island. This means, a person who borrows things from a friend's house one by one until there is nothing left. The closest word in English will be thief but thief is not a friend to begin with.

Hygge: It is a Danish word. It means complete absence of anything annoying, irritating or emotionally overwhelming, the presence of and pleasure from comforting, gentle and smoothing things.

Untranslatable

Uitwaaien: It is a Dutch word. Literally, this means to walk in the wind, but in some cases it means to take a brief break in the country side to clear one's head. It is amazing that one word needs so many in English to make the same sense.

Life Thoughts

- Nidhi Amit Pathak, BCA

Answer of life lies inside the person perception. Perception makes the attitude and attitude show in an action. In the life which makes us sometime successful or sometime failure.

LIFE THOUGHTS— is as simple as river but some time when we want the life-like an ocean. Then trouble is starts.

Too much expectation MAKES of all OUR worries

Negative thoughts may go beyond the infinity, with respect to deepness of an ocean, deepness of an earth, deepness in the sky which may go up to an infinity. But true life thoughts change the person life more towards positivity. The right thoughts makes our life more easy and more practical. life is easily and simple, If your mind in pace with god whether it is your teacher, mother or father (these all are living god who works selfless way).

Up and down in the living is necessary but lose the respect is like a body without soul in it so respect is above all. Meaning of life is to search the soul and searching the soul actually searching the god who guide us towards right direction. God is a supreme, he do the things which is not visible. But it is good for people. Situation is worse. Time is difficult. But a ray of hope come and alive again so believe in yourself and God .

The faith and mental piece is two-way to reach the mountain of happiness. The Self Interest self-image is a person's perception. People may try to harm your interest. Love the things which you love and live the life which suit to you, feel like a heaven. But your feet on the ground. Forget and forgive yourself about events in a life. It is another shade of life. Life is full of surprises but your self-esteem is important. Thinking about the past is actually waste of time.

Thinking about the future is endless because it may go beyond the infinity. Thinking about present is prime important it is truth of you. It is truth on which your existence is k2exist.Love the truth that all you have. Live in the present. Life is like a vacuum for someone. Life is like a plain paper . Life is what? The answer lies in the life itself. More you explore more you find the meaning of life. But you should live in present moment which you have. This present moment makes your life beautiful unless until you stop too much thinking . Set the rules to yourself which you want in other.

But you should live in the present moment you have. Life is like a song in which music is given by an events. Events is good or bad but it is your life i.e. you enjoy the song what ever the situation you have. Life move on not because of mind , not because of heart but it run on the wheel of faith which give you stamina . Stamina comes from inner self and inner self is nothing it is exact you which hide, under cover of various problem which created by heart , mind . But you should live in present moment which is yours. Life is like a war. It is true. Where ambition cover your soul and you fly high in sky but your soul does not exist. Life is like an emotions. It is true .Where you swim in a deep ocean of emotions and you become an emotional fool. But you should live in present. Moment which is yours.

"Skyrmions" For Data Storage

- **Shilpa Gundiyal, MMS(C.M.)**

Researchers in Germany have used skyrmion tiny magnetic vortices that can be imagined as two dimensional knots in which the magnetic moment rotates about 3600 degrees within a plane for the first time to store data. This technology could be used to create hard disk with higher densities and faster data transfer speeds.

What Are Skyrmions? Skyrmions that consist of a small number of atoms were first identified about 80 years ago and have been the object of intensive research in recent years. They are named after a British particle Physicist, Tony Skyrme. This meant the existence or non-existence of a skyrmion could be assigned the digital bit states "1" and "0", the basis for information technology.

In a Gist:

In their experiment, the researchers used a two atomic layer thick film of palladium and iron on an iridium crystal. They observed the skyrmions, with a diameter of a few nanometers, with a scanning tunneling microscope.

The skyrmions were then manipulated with a small spin polarized current from the tip of the microscope. The research team has demonstrated the feasibility of skyrmions in data storage.

This new technology can also be introduced in computers, tablets and smart phones.

OVERCOME YOUR FEARS

- Chinmay Daflapurkar, BCA

How to be disciplined in life?

Why do we repeatedly plan to do things differently? We start with the best intentions and fall short, over and over again. Being afraid and avoiding anything uncomfortable, scary or different is usually the biggest obstacle to change.

Often we think it's simply a lack of willpower or discipline at the heart of not sustaining change.

Human beings gravitate to comfort zones. That's the place where nothing is too scary, takes too much effort or requires feeling uncomfortable. We get used to tolerating what isn't working for us, even making excuses for the bad habits.

How to develop willpower

Like most of us we are not aware of how afraid we are and the role fear played in our life until one day. So here what you can do. Just focus on the problems and don't quit until you get to that zone.

How to build confidence and self-control

It's important to recognise those great achievements but more importantly, to build your courage, strength and sense of pride. You learned to trust herself to push through fear, handle difficult situations and come out the other side with no harm.

Think of 'confidence' as a verb. It doesn't happen because you've lost a few pounds or finally asked for a raise. True, lasting confidence comes from showing up every day for yourself and living up to your own ideals. Building willpower and self-discipline comes from feeling afraid and having the courage to overcome it. Here are

Five important things to remember about overcoming fear, denial and discomfort:

1. It's OK to be afraid. Fear is a human emotion. Everyone feels it.

2. Fear will not magically go away. It only dissipates once you take action.

3. Make your dreams bigger than your fear. Connect with your goals and realise what the daily payoffs will be because of them.

4. Realise the thing you are most afraid of can be like a road sign – pointing you in the right direction to help you move forward.

5. Understand that feeling fear isn't a bad thing – it means you're growing from an experience and will learn a life lesson.

Fear keeps us in the background. It convinces us we can never accomplish our dreams, tells us to keep quiet, and separates us from the ones we love. Fear has an unparalleled ability to freeze us in our tracks, and limit what we are willing to try. Fear makes us lead a smaller life.

The things that we are afraid of may be different, but our reactions to fear are usually the same – our palms sweat, our mouths get dry, our stomachs churn — and we would do anything, make any sacrifice, just to make it go away. How many times have you turned away from an opportunity or even a relationship because you were too afraid to go for it?

Fear is not a bad thing. It exists for our protection as an early warning signal. But there is a big difference between the healthy fear that tells us to step away from the edge of a cliff and a constant fear that keeps us from living our life.

CONNECTING WITH OTHERS

All fears, no matter how big or small, are worse when we face them alone. Find a good friend to share your fears. We tend to resist admitting our fears because we are afraid that the person will think less of us, that they will laugh, or make things worse. Find someone you can trust a relative or trusted friend and share what's bothering you. They may be able to help you see what you're afraid of in a new light, and they will be there to stand by you and encourage you as you take steps to face your fears.

FACE YOUR FEARS

Finally, the last step is to actually face your fears. First, it is important to note that some fears are healthy and some situations should be avoided for your own personal safety. There are no hero points awarded for going into a personally threatening situation. However, if the threat is more mental than physical, actually doing the thing you're afraid of can be the best antidote of all.

दिल तू क्युँ उदास होता है

दिल तू क्युँ उदास होता है
जब तू उसे किसी और के साथ पाता है
है वोह खुश तेरे बिना हि साथी
इतनी सी बात तुझे समज नहीं आती
की अब वोह तूझें नहीं चाहती
यह जानकर भी तू उसे चाहता है
दिल तू क्युँ उदास होता है

नहीं है बात वोह अब तुम्हारी दोस्ती में
वह मगन है गैरों की मस्ती में
तेरे होने का उसे फर्क नहीं पड़ता
फिर भी तू मुझसे उसके लिए है लड़ता
नहीं समझ पायी वह कभी तेरी बात
बस कल ही हुयी है तेरी आखरी मुलाक़ात
यह जानकर भी तू उसे चाहता है
दिल तू क्युँ उदास होता है

उसने तेरा सीर्फ इस्तमाल किया
फिर भी तुन्हे उसे सीर्फ प्यार किया
सब समझके भी तू नादान रहा
उसकी हर बात पर तुझे ऐतबार रहा
जब तोड़के चलीं गयी तेरे भ्रम को
क्युँ तुझे इतना बुरा लग रहा है
दिल तू क्युँ उदास होता है

-तन्मय पगारे, BCA

इश्क़ ए चालिसगाव

जहाँ इश्क़ को भी इश्क़ हो जाएँ ,ऐसा यहाँ का पानी हैं

इश्क़ ए चालिसगाव की अजब सी कहानी हैं ,

यहाँ दिल से दिल का मेल देखा

आती जाती रेल को भी देखा

इस शहर की तो हवा भी दिवानी हैं

इश्क़ ए चालिसगाव की अजब सी कहानी हैं ,

यहाँ लोग दिल से कहते हैं

बड़ी खुश मिजाज़ में रहते हैं

कभी अन्याय को ना से सहते हैं

प्रेम की धारा में ये भी बहते हैं

इश्क़ ए चालिसगाव की अजब सी कहानी हैं ,

वो दिखे थे उस गली में

जिस गलीसे होकर हवा गुजरती हैं

जिसके लिए कभी हम मरते थे

क्या वो मेरे लिए मरते हैं

इश्क़ ए चालिसगाव की अजब सी कहानी हैं ,

दिल देखा दिलबर दिखा, देखा दिलकश नजर

इस जहाँ में सबसे प्यारा हैं चालिसगाव हमारा

थाट देखा ,बाँट देखा देखी प्रेम की धारा

जो कुछ शहर से जुड़ी

बस एक याद मेरी पुरानी हैं

इश्क़ ए चालिसगाव की अजब सी कहानी हैं।

- चिन्मय डफलापुरकर, BCA

खुद को मैं ढ्न्ढ रहा हूँ मैं,

खुद को मैं ढ्न्ढ रहा हूँ मैं,
एक ऐसे सफर पे चल रहा हूँ मैं।
ना रास्ता है ना ही मंज़िल का पता ,
फिर भी एक उम्मीद लिए निकल पड़ा हूँ मैं।
खुद को खुद में ढ्न्ढ रहा हूँ मैं।

भीड़ में हूँ तनहा, अकेले में खुश हूँ ,
इस बात पे रुसवा क्यों मैं हूँ पता नहीं।
यह सफर क्या मोड़ ले रहा हैं
सांस चल रही है और दिल धड़क रहा हैं।
फिर भी खुद को ज़िंदा क्यों नहीं लग रहा हूँ मैं।

पहले तो ऐसा नहीं था जैसे की अब हूँ मैं,
आईने में भी क्यों अपने जैसा नहीं हूँ मैं
मैं ढूंढ़ने बहोत अपने हों एक वज़ूद
पर कुछ नैनहै मेरे पास मेरे होने का सबूत
बस इतनी ही आस है, एक दबी प्यास हैं
मैं हूँ मुझमे ही पर कहा खो गया हूँ मैं।
खुद को मैं ढ्न्ढ रहा हूँ मैं।

-तन्मय पगारे, BCA

यूँ तो

यूँ तो दिल के हर टुकड़े ज़ख्मो से भरे हैं ,
पर दोस्तों से जो मिलें वो ज़ख्म गहरे हैं।

वो बन रहे हैं क़ाबिल , चेहरे को पढ़ कर ,
उन्हें क्या पता हर चेहरे पे कई चेहरे हैं।

छोड़ तोह जाऊँ मैं आशियाना ये आज ही,
हर तरफ़ आपके दिए बिखरे है।

आपस की रंजिश दूर हो जातीं हैं सलाम से,
पर क्या करे,हम दोनों गुरूर से जो भरे हैं। '

मुद्दतों से जो बातें दबी थी दिल में कहीं,
वह ही तोह आज जुबान पर आकर ठहरें हैं।

शायद जी लूँ मैं साँसों के थमने के बाद ,
यहाँ तो हर साँस पे मेरी हज़ारों पहरे हैं।

ज़िंदा रहने की कोशिशें मेहंगी हो चले ,
जहाँ देखों वहीं ग़रीब मरे आजकल पड़े हैं।

चुन कर सजाएं हैं आप ने दामन जिस से ,
फूल नै तेजस के अरमानो के टुकड़े हैं।

- चिन्मय डफलापुरकर, BCA

गंध प्रेमाचे

तुजा प्रितीच्या ओढीने
मार्ग प्रेमाचे हे सजले
पाहता समोर तुजला
वार दुखाचे हे हरले...

तुझ्या हसन्याने मज आज
क्षण सुखाचे दिसले
पाहताच समोर तुजला
बाग फुलाचे फुलले...
आज तुजसवे बोलताना

तुज्या उमललेल्या ओठातुन
शब्दरुपी स्वर पडले
ऐकताच तुझ्या त्या स्वराना
मन माजे त्यात गुंगले...

नसता सामोरे तु आज माझ्या
मिटताच डोळे रुप तुजेच भिनले
प्रश्न पडतो मजला ? असे कसे मन
तुझ्या रूपात विरले...

- दर्शन निकम, BCA

Top 7 Programming Languages

- **Gaurav Gunjal, BCA**

In today's world most of work is done through software or application, to build the application or software firstly we need the programming language. There are hundreds of programming languages but the count of languages which are frequently used is small. Few of them are Java, Python, JavaScript, C++, C#, PHP, Perl.

Job postings containing top languages

Language	2018 jobs	2017 jobs
Java	62K	68K
Python	46K	41K
JavaScript	38K	40K
C++	31K	33K
C#	27K	28K
PHP	14K	13K
Perl	14K	17K

1. Java

Java is a high-level programming language developed by Sun Microsystems. **Java** is a General Purpose, class based, object oriented, Platform independent, portable, architecturally neutral, multithreaded, dynamic, distributed, Portable and robust interpreted Programming Language. It was introduced in Jan 1996.
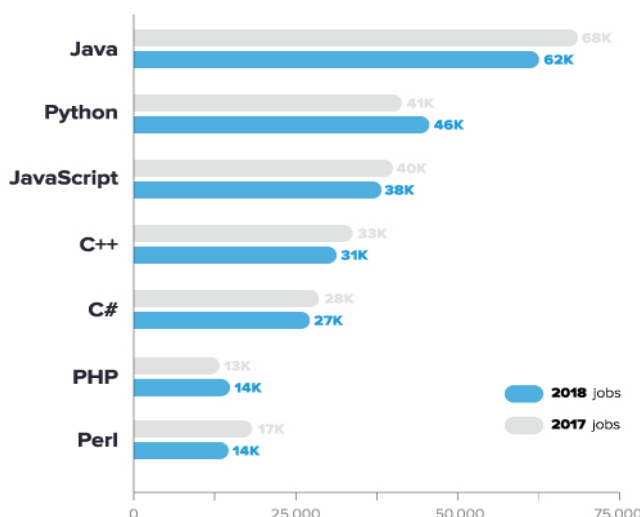
Java decreased in popularity by about 6,000 job postings in 2018 compared to 2017, but is still extremely well-established. Java is over 20 years old, used by millions of developers and billions of devices worldwide, and able to run on any hardware and operating system through the Java Virtual Machine. All Android apps are based on Java and 90 percent of Fortune 500 companies use Java as a server-side language for backend development. Java Enterprise Edition 8 and Java 9 both launched in September 2017 as the Eclipse Foundation took over managing Java EE from Oracle.

2. Python

Python is an interpreted, object-oriented programming language similar to PERL, that has gained popularity because of its clear syntax and readability. Python is said to be relatively easy to learn and portable, meaning its statements can be interpreted in a number of operating systems, including UNIX-based systems, Mac OS, MS-DOS, OS/2, and various versions of Microsoft Windows 98. Python was created by Guido van Rossum. Python can be used as the script in Microsoft's Active Server Page (ASP) technology. It was introduced in Feb 1991

Python grew in popularity by about 5,000 job postings over 2017. It is a general-purpose programming language used for web development and as a support language for software developers. It's also widely used in scientific computing, data mining and machine learning. The continued growth and demand for machine learning developers may be driving the popularity of Python.

3. JavaScript

It is a programming language that is characterized as dynamic, weakly typed, prototype-based and multi-paradigm. JavaScript enables interactive web pages and is an essential part of web applications. It was created by Brendan Eich in the year 1995.

JavaScript, the grandfather of programming languages, is roughly as popular today as it was in our last blog post. That's no surprise to us – JavaScript is used by over 80% of developers and by 95% of all websites for any dynamic logic on their pages. Several front-end frameworks for JavaScript such as React and AngularJS have huge future potential as IoT and mobile devices become more popular, so we doubt we'll see JavaScript drop in popularity anytime soon.

4. C++

C++ is a general-purpose object-oriented programming (OOP) language, developed by Bjarne Stroustrup in the year 1983.

C++ changed very little in popularity from early 2017 to now. An extension of the old-school "C" programming language, C++ is usually used for system/application software, game development, drivers, client-server applications and embedded firmware. Many programmers find C++ complex and more difficult to learn and use than languages like Python or JavaScript, but it remains in use in many legacy systems at large enterprises.
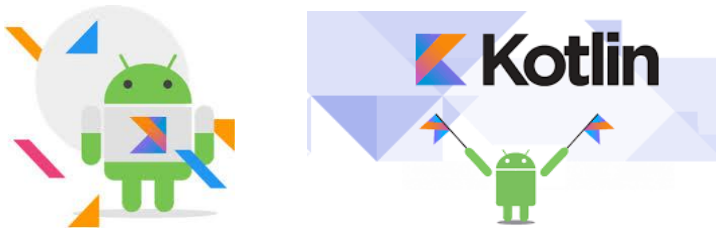
5. C#

C# (pronounced "C sharp") went down slightly in demand this year. C# is an object-oriented programming language from Microsoft designed to run on Microsoft's .NET platform and to make development quicker and easier than Microsoft's previous languages. C# 7.2 came out in November, adding several new features geared towards avoiding unnecessary copying. C#, like C++, is heavily used in video game development, so any aspiring video game developers would do well to learn both of them.

6. PHP

PHP, a scripting language used on the server side, moved up to number six in our ranking over number nine last year. Most developers use PHP for web development, either to add functions that HTML can't handle or to interact with MySQL databases.

7. PERL

Perl dropped by about 3,000 job postings and stayed in seventh place in our analysis. Perl 5 and Perl 6 are both chugging along and Perl continues to be popular for system and network administrators and as a glue language.

- Abhijit Maradiya, BCA

We all know about latest technologies that now works in 21st century. We also know that to be build these technologies we need hardware and software (programming languages).one of them is "Kotlin".You all must wonder what exactly this programming language is. Now lets talk about it.

Kotlin was firstly introduced in July 2011. It is a cross-platform, statically typed, general-purpose programming language with type inference. Kotlin is designed to interoperate fully with Java and the JVM version of its standard library depends on the Java Class Library. And The name "Kotlin" comes from Kotlin Island, near St. Petersburg. Andrey Breslav mentioned that the team decided to name it after an island just like Java was named after the Indonesian island of Java.

Kotlin is officially supported by Google for mobile development on Andriod. Since the release of Android Studio 3.0 in October 2017, Kotlin is included as an alternative to the standard Java compiler. Kotlin v1.0 was released on February 15, 2016. This is considered to be the first officially stable release and JetBrains has committed to long-term backwards compatibility starting with this version. At Google I/O 2017, Google announced first-class support for Kotlin on Android. Kotlin v1.2 was released on November 28, 2017. Sharing code between JVM and Javascript platforms feature was newly added to this release.

We can develop Java Applications, Android Applications, Web Applications and native applications using Kotlin. So we can say it is a multiplatform Language.

Kotlin is not the replacement of java. Kotlin is interoperable with Java means we can use our existing Java code with Kotlin and Kotlin code with java.

Kotlin is 100 percent interoperable with Java, which means it is possible for small to large organizations to transition themselves to Kotlin. However, it needs to be a well-planned task and requires the expertise of developers.

Features

1. Kotlin is open source
2. Full Java Interoperability
3. Kotlin compiles to JVM bytecode or JS
4. Data Classes in Kotlin
5. Defaulted parameters
6. Kotlin imposes no runtime overhead
7. Null Safety in Kotlin
8. Extension functions
9. Kotlin wants you to write less code

Tools

- IntelliJ IDEA has plug-in support for Kotlin. IntelliJ IDEA 15 is the first version to bundle the Kotlin plugin in the IntelliJ Installer, and provide Kotlin support out of the box.

- JetBrains also provides a plugin for Eclipse.

- Android Studio (based on IntelliJ IDEA) has official support for Kotlin, starting from Android Studio 3.

Applications

One of the obvious applications of Kotlin is Android development. The platform was stuck on Java 7 for a while and Kotlin introduces many improvements for programmers such as null-pointer safety, extension functions and infix notation. Accompanied by full Java compatibility and good IDE support it is intended to improve code readability, give an easier way to extend Android SDK classes and speed up development.

Kotlin was announced as an official Android development language at Google I/O 2017. It became the third language fully supported for Android, in addition to Java.
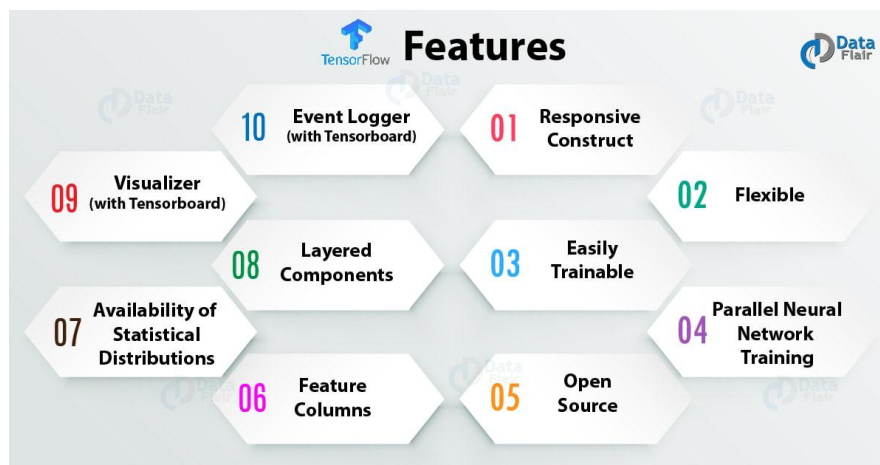
TensorFlow

- Vivek Sharma, BCA

Humans can expand their knowledge to adapt the changing environment. To do that they must "learn". Learning can be simply defined as the acquisition of knowledge or skills through study, experience, or being taught. Although learning is an easy task for most of the people, to acquire new knowledge or skills from data is too hard and complicated for machines. Moreover, the intelligence level of a machine is directly relevant to its learning capability. The study of machine learning tries to deal with this complicated task. In other words, machine learning is the branch of artificial intelligence that tries to find an answer to this question: how to make computer learn?

This is adapted by latest technologies that are most frequently used for Machine Learning. But TensorFlow is the latest programming language used nowadays.

TensorFlow isa free and open-source software library for dataflow and differentiable programming across a range of tasks. It is a symbolic math library, and is also used for machine learning applications such as neural networks. It is used for both research and production at Google. TensorFlow was developed by the Google Brain team for internal Google use. It was released under the Apache 2.0 open-source license on November 9, 2015. Starting in 2011, Google Brain built DistBelief as a proprietary machine learning system based on deep learning neural networks. Its use grew rapidly across diverse Alphabet companies in both research and commercial applications. Google assigned multiple computer scientists, including Jeff Dean, to simplify and refactor the codebase of DistBelief into a faster, more robust application-grade library, which became TensorFlow. In 2009, the team, led by Geoffrey Hinton, had implemented generalized back propagation and other improvements which allowed generation of neural networks with substantially higher accuracy, for instance a 25% reduction in errors in speech recognition.

TensorFlow is constantly being updated. Although it isn't an official Google product, it is also open source and hosted on GitHub. At the time of writing, TensorFlow is at release 1.2. The most recent release added distributed computing capabilities. These are beyond the scope of this book, but generally speaking, they allow computation across multiple GPUs on multiple machines for maximum parallelization. Under heavy development, more

features are always just around the corner. TensorFlow is becoming more popular every day.

Several software companies have released machine learning frameworks recently, but TensorFlow stands out in adoption. Internally, Google is practicing what they preach. .

Main Use Cases of TensorFlow

    1. Voice/Sound Recognition

    2. Text Based Applications

    3. Image Recognition

    4. Time Series

    5. Video Detection

Bonus: This might not be a common use but it is a matter of life and death –if you watch American movies you know! – and it is chosen as the top 20 projects worldwide (Global Finalist). Nasa is designing a system with TensorFlow for orbit classification and object clustering of asteroids. As a result, they can classify and predict NEOs (near earth objects).

As TensorFlow is an open source library, we will see many more innovative use cases soon, which will influence one another and contribute to Machine Learning technology.