

Piyush Bajaj

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Summary

A Software Engineer, passionate about cloud computing, web services and user experience with **3+ years** of industry experience. I have worked on a variety of small to large scale projects in agile environments where I have demonstrated an innovative mindset, ability to iterate and deliver quickly and influence the product strategy.

Education

San Jose State University	M.S. Computer Science	Graduated - May 2019
Microsoft Summer School	Machine Learning	Completed - June 2015
Bangalore Institute of Technology	B.S. Computer Science	Graduated - May 2015

Work Experience

FireEye Inc. - Software Development Engineer **San Francisco Bay Area, Jun 2018 – Present [1.2 yrs.]**

- Implemented a POC during my internship to migrate security binary files and its metadata to a resilient server using Artifactory, Flask, Swagger API to improve the scalability and efficiency of the distribution system by two-fold.
- Refactoring the legacy codebase for Cloud provisioning of multi-million-dollar products by collaborating with various stakeholders and automating the deployment of 2 manually provisioned products.
- Developing new features in Java on re-structuring various IAM modules in the Cloud Provisioning Services.

Associated Students, SJSU - Web Developer Intern **San Jose, Mar 2018 – Jun 2018 [4 mo.]**

- Designed the core experience of the voting application by creating wireframes, interactive prototypes and led the design and development of responsive website flow for the student's voting experience.
- Discovered, analyzed and fixed critical security vulnerabilities including XSS, injection, slow HTTP Post in the app.

Unisys Corporation - Associate Engineer **Bangalore, July 2015 – July 2017 [2 yrs.]**

- Developed features to achieve a 5% higher throughput and decoupled various modules in propriety communication products written in C.
- Redesigned the legacy admin web application with Bootstrap and SASS which provided an intuitive UI experience.
- Reported critical security flaws and data consistency bugs by UI and functional testing the admin application for the on-premise Unisys appliances.

Zomato - Software Developer Intern **Gurgaon, Jun 2015 – Jul 2015 [2 mo.]**

- Partnered with designers and engineers to build a first of its kind prototype of a web app which enables customers to make restaurant reservations online in real time using SVG, AJAX, and jQuery.
- Researched and identified problems through stakeholders and analyzed the best implementation for table allocation system by conducting extensive usability tests.

Microsoft - Developer Student Partner **Bangalore, April 2014 – Mar 2015 [1 yr.]**

- Worked with PMs and Microsoft evangelist to improve the Microsoft student community portal by developing messaging services via web sockets mostly written in Nodejs to enhance means of collaboration within community.
- Judged the prestigious Microsoft Imagine Cup where I gauged various windows game application based on creative features and intuitive user experience.
- Organized the Microsoft Research India's biggest annual research symposium TechVista 2015.

TreeWalker Technologies - Web Application Intern **Bangalore, Jan 2014 – Jun 2014 [5 mo.]**

- Designed and launched Stack Overflow inspired application using PHP, AJAX, Code Igniter Framework which leveraged employee's collaboration by 40% in 3 months.

Skills

- **Languages and scripts:** Java, C, C++, JavaScript, Python.
- **Web technologies:** Node.JS, Express.JS, HTML, CSS, AJAX, jQuery, Bootstrap, JSON, XML, SOAP, RESTful services.
- **Databases:** MySQL, SQL Server, PostgreSQL, MongoDB.
- **Cloud technologies:** Amazon Web Services, Vagrant, Docker, CloudSim.
- **Machine Learning libraries:** SciKitLearn, NumPy.
- **Big data:** Apache Hadoop, HDFS, Spark, Kafka.

Projects

Farm IoT data processing and analytics – Big Data/Machine Learning

Designed Big data as a Service framework where we can do real-time data stream processing of the plant's health via the green color index and growth rate by providing statistical analysis for prediction. *Used Node.js, Spark, MongoDB, Python, AWS, ML Library.*

Load Balancing Algorithm Framework – Cloud Computing

Implemented Bayes and clustering algorithm to manage load efficiently across 1000s of nodes in a constrained cloud environment which significantly performed 20% better than industry based queuing algorithms. *Used Java, CloudSim.*

Hola – Find your friend

Created a web-app where a user can register via Facebook and view neighboring friends in real time over a Google Map interface. The user can narrow search results based on various input parameters. *Used JavaScript, MongoDB, REST, Google Map API, Facebook Graph API v2.10.*

Faces of BIT – Campus Connect Networking Platform

Launched a social networking site on my campus to help students to get to know other students by liking each other photos and making interaction happen in a more fun way. *Used PHP, jQuery.*

Driver Sleep Detection System – Computer Vision Application

Implemented a monitoring system to indicate driving aptitude of a driver and alarm is raised based on eye blink and mouth yawning rate of the driver if fatigued. *Used C, Viola-Jones, Sobel, and SVM.*

Mars Rover – 3D Object Manipulator

Built a direct manipulation interface for selection, navigation, and manipulation of the Mars rover on a 3D Martian terrain model. *Used open Frameworks and C++.*

Extracurricular

- Second Place at 36 hours SureWaves Hackathon 2014.
- Certified in "Mobile App Analytics" by Google.
- Certified in "IoT and Smart Services Technology" by SAP.
- 2nd in app development at IIT Mandi.
- Certified by the University of Toronto in "Programming Fundamentals."

GitHub: <http://github.com/piyushbajaj0704>

Portfolio: <http://piyushbajaj.in>

LinkedIn: <http://linkedin.com/in/piyushbajaj0704>