DHIRAJ BORADE

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**OBJECTIVE:** Actively seeking Software Development opportunities to develop myself into an excellent Computer Science professional.

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**SKILLS SUMMARY:**

* Languages and Technologies: Embedded C, C++, Java, JavaScript, Python, Swift, Docker, Git, PostgreSQL, iPython, SQLAlchemy.
* Libraries and Frameworks: Flask, Spring MVC, Swing, Bootstrap, Materialize CSS, Angular, JQuery, NumPy, Pandas, Matplotlib.

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**EDUCATION:**

**Master of Science: Computer Science, GPA - 3.45**  **Graduation - May 2018**

***University of Florida*** *- Gainesville, Florida, USA*

Coursework in Distributed Operating Systems Principles, Concurrent Programming, Analysis of Algorithms, Database Management Systems, Advanced Data Structures, Programming Language Principles, Computer Networks and Distributed Multimedia Systems.

**Bachelor of Engineering: Electronics Engineering, GPA - 3.33** **Graduation - May 2013**

***University of Mumbai*** *- Mumbai, Maharashtra, India*

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**EXPERIENCE:**

**Data Science and Full Stack Development Intern** **May 2017 to Present**

***Claimfound Inc.*** *– Gainesville, Florida*, USA

* Improved and maintained Full Stack of a Web Application in an **Agile Environment**.
* Improved all the server endpoints using **Flask-RESTful**, resulting in 20% faster response between client and server.
* Improved the database query runtime for matching claims with user by 94% (140x faster), using database indexing and by improving the existing claim matching algorithm.
* Implemented Mock Frontend, which simulated all the HTTP requests of the actual Frontend for Backend Testing.
* Achieved concurrency in all web application tasks using **Celery** and **RabbitMQ** for better performance.
* Developed and deployed an intermediate staging server on **AWS** for testing the application, before deploying the application to the production server, resulting in a **Continuous Integration Continuous Development (CICD)**.
* Developed **Docker** images for infrastructure virtualization and application isolation.
* **Technologies: Angular, Flask, Python, PostgreSQL, Celery, RabbitMQ, NumPy, Pandas, Docker, Git, Shell Scripting.**

**Senior Design Engineer** **July 2013 to June 2016**

***Larsen and Toubro Limited*** *– Mysore, Karnataka, India*

* Firmware **(Embedded C)**, Software **(Visual C++ and JAVA Swing)** and Hardware (Mixed Signal Processing) for Single Phase Energy Meter on various platforms viz., Texas Instruments (TI), Renesas, Analog Devices (AD).
* Designed and Developed Low Cost Energy Meter from Proof of Concept to manufacturing in record time of 6 months to overcome market challenges of cost reduction and achieved sales of 10 Million pieces annually boosting the sales by 20%.
* Improved the energy measurement accuracy of the energy meter by 75% (1.5x better) by developing optimized algorithms.
* Developed Native **Android** and **iOS** application as an interface to generate Energy Bill by acquiring data from Energy Meter directly to Mobile Phone via Bluetooth and pushed onto **AWS**, to be collected by the Electricity Utility.
* **Technologies: IAR Systems for TI and AD, Cubesuite+ for Renesas, CAD/CAM, PSpice simulator, Android Studio, Swift.**

**Research and Development Intern** **November 2008 to November 2009**

***APLAB Limited*** *– Mumbai, Maharashtra, India*

* Firmware **(Embedded C)** and Software **(Visual C++ and JAVA Swing)** for Uninterruptible Power Supply (UPS) Systems.

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**PROJECTS:**

* Developed a **Compiler** for a small programming language with custom grammar, generating JAVA bytecode, which enabled the programming language to run on any platform with a JRE. **(JAVA, ASM bytecode framework for code generation)** – December 2017
* Developed a **P2P file sharing application** like Bit Torrent with functions like peer discovery at regular intervals, choking / unchoking of peers according to downloading rate, parallel download of file pieces from multiple peers. **(JAVA, Wireshark)** – December 2017
* Developed a **Full Stack Data Intrinsic application** built upon a huge database which houses soccer data spanning over 10 years and having 100,000 records. **(HTML, CSS, AngularJS, Bootstrap, JAVA, RESTful APIs, RDBMS)** – May 2017
* Implemented **Dijkstra’s Single Source Shortest Path algorithm** for Undirected graphs using Fibonacci Heap and a routing scheme for a network, wherein, routers are matched by longest prefix matching using Binary Trie and the shortest path between routers is obtained through the shortest path algorithm. **(C++, Git)** – May 2017
* Developed Huffman Encoder and Decoder for Data Compression and achieved a compression of 65%, Priority Queue Structure was used for generating **Huffman Tree.** **(JAVA, Git)** – April 2017
* Developed **5-Stage Advance Pipeline using Tomasulo algorithm** with out of order execution and in order commit along with Branch Predictor using the Branch Target Buffer for a processor which executes MIPS32 instruction set. **(JAVA)** – December 2016
* Developed **Internet of Things with Xinu operating system** running on Beaglebone black, which follows Cloud, EDGE and beneath architecture for externalization. **(Embedded C, JAVA, HTML, CSS, JQuery, EDGE, RESTful APIs)** – December 2016