

# Swapnil Bhosale

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## EDUCATION

### University of Maryland Baltimore County

Master of Science in Computer Science

Baltimore, MD

Expected May 2021

### University of Pune

Bachelor of Engineering in Computer Engineering; First Class With Distinction

Pune, India

Aug 2011 - June 2014

## SKILLS

- **Proramming Languages:** Java, Python, Rust, C, JavaScript, SQL, NoSQL, NodeJS, TypeScript
- **Technologies:** Spring-Boot, Machine Learning, Cloud(Azure, AWS), Docker, WebRTC, Socket Programming, IoT, WebRTC, Android, System Programming, Arduino Uno, Sensors and Actuators

## EXPERIENCE: 4 YEARS

### Pratiti Technologies Pvt. Ltd.

Software Engineer

Pune, India

June 2018 - July 2019

- Devised & developed back-end services using cloud features, using **Serverless Computing and Kubernetes Clusters** for Siemens *MindSphere IIoT Cloud Platform*
- Researched & implemented **Azure Mock library in NodeJS**. So far Microsoft has not yet announced Azure mock library in NodeJS
- Explored & developed Spring-Boot libraries for Cloud Stream binders for **Azure Service Bus, Azure Simple Queue and Azure Logging and Monitoring** which was used by all the product lines in the product
- Involved, investigated and resolved various **production issues**
- Designed & adapted **Cloud Agnostic Solution** for the cloud IIoT platform. The objective was to devise a solution which has a single code base for Azure, AWS and Alibaba cloud platforms and it was achieved with my design
- **Finalist in the Siemens yearly Hackathon 2019**. Implemented Smart Trash Management System using **Cloud IIoT platform and Ultra Sonic sensor**. Integrated **Raspberry Pi over OPC-UA** with the platform for data transmission. Developed **Android App** for route navigation using **Google Maps API**

### Xoriant Solutions Pvt. Ltd.

Software Engineer

Pune, India

September 2017 - June 2018

- Designed, lead & implemented SDK development for the communication platform. **Highly appreciated** by clients and product stakeholders for the simplicity and comprehensive documentation of the SDK in JAVA
- Demystified **Docker and Dockerized the Spring-Boot micro services**. Also configured the Bamboo CI/CD to use docker and wrote shell script to auto-configure the docker containers for Multi-Environment deployments
- Proposed a new system design and supervised the initiative. Re-factoring of the architecture was endorsed by the product manager and stake-holders. The goal of new system was to satisfy modular, less verbose, maintainable and testable paradigms of software engineering and were achieved

### Great Software Lab Pvt. Ltd.

Associate Software Engineer

Pune, India

May 2015 - July 2017

- Researched & programmed *Machine Learning Algorithm* to solve energy savings problem of the client. The algorithm helped in **25% energy saving and overall 5% increased** in the productivity
- **Reverse Engineered projector** and controlled it using IR sender in the Hackathon. Moreover developed *full working Smart Office* concept in the stipulated 24 hr timespan
- Researched & implemented use cases in Avaya Breeze platform which *helped the organization becoming a Technology Partner* with the Avaya. Later, the use case was **demonstrated at the Avaya's Gitex Technology event at Dubai**
- Built & integrated OPC-UA protocol handler in the one of the IoT platform. This was *one of the best value addition* to the client product and was **highly appreciated** by them. Received **Pat On The Back Award** for my work

## ACADEMIC PROJECT

- **RFID based Bus Tracking System Analysis:** Addressed the shortcoming of the GPS, Bluetooth, ZigBee in the context of Bus monitoring system. Presented a new solution, which was based on GSM and RFID's.
  - Researched, studied & compared available Bus Monitoring Systems and their pros and cons. Devised a new solution using **RFID's and GSM** which was cost effective and also solved the shortcomings of GPS and GIS.
  - **Technologies:** C, VB, Assembly Language, MiroController AT89S52, RFID tags and reader, GSM

## ADDITIONAL CONTRIBUTIONS & ACHIEVEMENTS

- Contributed to JVM implementation in Rust
- Implemented CHIP-8 emulator
- Contributed to SFTP and TFTP implementation
- Programmed FAT file simulation in JAVA
- Contributed to the azure-function-express NodeJS library
- Contributed to experimental compiler for Tiger language using LLVM
- Won Avaya hackathon **Second** place 2017
- Won GSLab hackathon **Best Idea** Award 2016