

# 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

- **Programming 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.

Pune, India

Software Engineer

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.

Pune, India

Software Engineer

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 microservices**. Also configured the Bamboo CI/CD to use docker and wrote a 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 stakeholders

### Great Software Lab Pvt. Ltd.

Pune, India

Associate Software Engineer

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 limited time of 24HR
- Researched & implemented use cases in Avaya Breeze platform. Later, the use case was demonstrated at the Avaya's Gitex Technology event at Dubai
- Built & integrated OPC-UA protocol handler in one of the IoT platform. **This initiative made the value addition** to the product and was highly appreciated. *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, MicroController AT89S52, RFID tags and reader, GSM

## ADDITIONAL CONTRIBUTIONS & ACHIEVEMENTS

- NSA CodeBreaker 2019 **solved 5 problems** 2 to go
- Contributed to JVM implementation in Rust
- Implemented CHIP-8 emulator
- 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