Rachit Rathi

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EDUCATION

Master of Science in Computer Science *Aug 2021 - Dec 2022*
University of Florida, Gainesville, United States **GPA: 3.77/4.0**
Relevant Courses: Analysis of Algorithms, Data Structures, Operating Systems, Machine Learning, Software Engineering

Bachelor of Engineering in Electronics and Telecommunication *Aug 2016 - May 2020*
Sardar Patel Institute of Technology, University of Mumbai, India **CGPA: 8.78/10.0**

WORK EXPERIENCE

Software Engineering Intern - *[AWS SAM, Lambda, DynamoDB, GraphQL]* *Jun 2022 - Aug 2022*
Stanley Black & Decker - *Digital Innovation Division* *Remote*
- Assigned to work on Backend service (Oxygen) that integrates with 4 vendor applications to fetch data from lawn mowers.
- Processed Cumulocity IoT events through data ingestion pipeline using Kinesis and Lambda to serve APIs using GraphQL.
- Led and managed a team of 10 co-interns in innovation challenge to create a new product pitchbook for potential use by SBD

Software Engineer - *[.NET Core MVC, C#, JavaScript, MS-SQL]* *Sept 2020 - Jun 2021*
Capgemini - *Sogeti Division* *Bangalore, India*
- Developed end-to-end flow to register and evaluate certification applications catering to 5000+ internal employees using .NET.
- Created role-based views using JavaScript and AJAX to process and approve applications in portal and generated history logs.
- Triggered automated mail notifications using C# through console application to employees at each stage during process.
- Followed Agile, documented, and managed project milestones and deliverables, and tested and resolved bugs with QA team.

PROJECTS

Gator Marketplace - *[React, Go, MongoDB, link]* *Jan 2022 - Apr 2022*
- Implemented Full Stack decoupled web application using Golang, React, and SDLC for UF student community to buy/sell products.
- Worked on OAuth2.0, API development, and Payment Gateway Integration using Stripe. Used CI/CD and deployed to Heroku.

Twitter Engine - *[F#, JavaScript, HTML, link]* *Nov 2021 - Dec 2021*
- Built Twitter Engine using F# with Web Interface and implemented tweeting, retweeting, hashtags, mentions using Suave.IO.
- Simulated 100000+ clients with independent processes using single engine and generated Zipf distribution on subscribers.

Bitcoin Miner - *[F#, Akka.NET, Actor Model, link]* *Aug 2021 - Sep 2021*
- Developed Bitcoin Miner running on distributed systems using F# through client server architecture using Actor Model.
- Used SHA-256 hashing to find coins up to 12 leading 0's with CPU to Real Time ratio of 2.7, thus achieving high parallelism

University Connect - *[React, Node.js, AWS, link]* *Jan 2021 - Jun 2021*
- Contributed to creating website using MERN for collaboration of students and teachers with handling capacity of 10000+ users.
- Created RESTful APIs, Q&A forum, user profiles, chat functionality and scripted unit test cases. Hosted website on EC2 and Heroku.

Driver Fatigue and Distraction Analysis using Machine Learning - *[Python, OpenCV, TensorFlow, link]* *Jun 2019 - Dec 2019*
- Analyzed and predicted current state of driver using K-Nearest Neighbor Algorithm by monitoring eyelid blinking and yawning.
- Predicted activities such as texting, drinking, speaking with optimized accuracy of 97% using VGG16 transferred learning.

Automated Stacking System - *[Ladder Logic, Python, MySQL]* *Oct 2018 - Feb 2019*
- Designed prototype to palletize boxes of similar dimensions using PLC and HMI, and controlled system through cloud using OPC.
- Programmed robotic arm and estimated box dimensions with 85% accuracy through cameras and laser using image processing.

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, C#, Python, Golang, HTML, CSS, SQL, F#, Ladder Logic
Web and Databases: React, Node.js, ASP.NET Core MVC, AWS, MongoDB, DynamoDB, MS-SQL, REST, GraphQL
Frameworks and Tools: OpenCV, Visual Studio, Mocha, Google Analytics, Git, Raspberry-Pi, Agile
Certifications and Trainings: AWS Certified Solutions Architect (Associate), Linux Administration, IoT, Industrial Automation

AWARDS AND INVOLVEMENTS

- Led team of four members at Mitsubishi Electric Cup 2019 and secured 2nd Appreciation Prize nationally.
- Volunteered as Teaching Assistant from 2017-2019 at Abhyudaya SPJIMR, that caters to underprivileged children.
- Co-authored and published research paper in IEEE titled "*Implementation of Virtual OPC on Cloud*" at TENCON 2019.