

Rachit Rath

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EDUCATION

University of Florida, Gainesville, United States

Aug 2021 – Dec 2022

Master of Science in Computer Science

GPA: 3.77/4.0

Relevant Courses: Analysis of Algorithms, Distributed Systems, Applied Machine Learning, Software Engineering

Sardar Patel Institute of Technology, University of Mumbai, India

Aug 2016 – May 2020

Bachelor of Engineering in Electronics and Telecommunication

CGPA: 8.78/10.0

WORK EXPERIENCE

Capgemini - [[.NET Core](#), [C#](#), [HTML](#), [AJAX](#), [JavaScript](#), [MS-SQL](#), [Agile Development](#)]

Sept 2020 – Jun 2021

Software Engineer – Sogeti Division

Bangalore, India

- Mapped employee performance ratings from excel template to company database using Open XML in .Net framework.
- Developed end-to-end pipeline to register and evaluate certification applications catering to 5000+ internal employees.
- Created role-based views for SPOC, Admin and User to process and approve applications in portal and generated history logs.
- Triggered automated mail notifications using console application to employees at each step during certification process.

J.P Morgan Chase & Co. - [[MS-Office](#), [VBA](#)]

Feb 2020 - Jul 2020

Analyst Intern – Centralized Research Group

Mumbai, India

- Advised foreign clients on Mergers and Acquisitions in the Industrials and Transportations sector by creating pitchbooks.
- Used Visual Basic and terminals such as FactSet, Bloomberg, and Eikon to perform research and analysis on financial data.

PROJECTS

Gator Marketplace (*Master's Project*) - [[Golang](#), [React](#), [MongoDB](#), [Go Testing](#)]

- Implemented a Full Stack decoupled web application for the University of Florida student community to buy/sell products.
- Followed SDLC methods and worked on OAuth2.0, API development, TDD, and Payment Gateway Integration using Stripe

Twitter Engine (*Master's Project*) - [[F#](#), [JavaScript](#), [HTML](#), [CSS](#)]

- Built Twitter Engine 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 (*Master's Project*) - [[F#](#), [Akka.NET](#)]

- Developed Bitcoin Miner capable of running on distributed systems 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 (*Startup Initiative*) - [[Node.js](#), [React](#), [Redux](#), [Mocha](#), [Express.js](#), [NoSQL](#), [AWS](#), [Google Analytics](#)]

- Contributed to creating website for collaboration of students, teachers, and alumni with a handling capacity of 10000+ users.
- Developed forms, Q&A forum, user profiles and in-house chat feature. Performed path-based analytics to track page visits.
- Created RESTful APIs and scripted unit test cases, also secured and hosted website on AWS using EC2 instances.

Driver Fatigue and Distraction Analysis using Machine Learning (*Final Bachelor's Project*) - [[Python](#), [OpenCV](#), [TensorFlow](#)]

- Analyzed and predicted current state of driver using K-Nearest Neighbor Algorithm by monitoring eyelid blinking and yawning.
- Classified distracted driver activity by training Convolutional Neural Network model (CNN) on State Farm Dataset.
- Predicted activities such as texting, drinking, speaking and others with optimized accuracy of 97% using VGG16 deep learning.

TECHNICAL SKILLS

Programming Languages: Java, JavaScript (ES6), C#, Python, Golang, HTML, CSS, SQL, F#, Ladder Logic

Web and Databases: React, Node.js, Express, ASP.NET Core MVC, AWS, MongoDB, MS-SQL, REST

Frameworks and Tools: OpenCV, TensorFlow, Visual Studio, Mocha, TDD, Google Analytics, Git, Raspberry-Pi, MS-Office

Certifications and Trainings: Linux Administration, Firebase, Internet of Things, Industrial Automation

PUBLICATIONS AND INVOLVEMENTS

- Published paper in IEEE titled "Implementation of Virtual OPC on Cloud" at TENCON 2019 ([ISBN: 978-1-7281-1895-6](#)).
- Published paper in Springer on bachelor's project at ICICC 2020 ([ISBN: 978-981-15-5113-0](#)).
- 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.