

Gowtham Chandrasekaran

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EDUCATION

San Jose State University

Master's in Computer Science - G.P.A: 4.0/4.0

San Jose, California

08/2021 - 05/2023 (*Expected*)

Anna University

Bachelor's in Computer Science - G.P.A: 8.2/10.0

Chennai, India

08/2015 - 04/2019

EXPERIENCE

Tata Consultancy Services

05/2019 - 05/2021

Software Engineer

- Developed a React-based server health monitoring dashboard that visualized CPU usage rate, disk capacity usage, and network throughput, improving metric readability.
- Programmed AWS Lambda functions and RESTful APIs to access server health metrics from AWS DynamoDB and analyzed them using Amazon Forecast to predict server failures with over 95% accuracy.
- Implemented a 2-factor User authentication page that performs password and OTP verification which improved the security using Angular and NodeJS.
- Collaborated with UX designers and product managers to create concept mockups and wireframes.
- Implemented unit tests using TDD with Enzyme, which improved code quality and prevented regressions, reducing the number of bugs by 99%.
- Collaborated with cross-functional teams, including UX designers, product managers and DevOps engineers, to deliver high-quality projects on time and within budget.
- Oversaw migration of a monolithic application to cloud-hosted microservices using Springboot and REST APIs, which resulted in a 50% reduction in server costs and improved scalability.
- Worked in Agile/Scrum methodology, using JIRA for project management

RESEARCH AND PROJECTS

Driver Distraction Detection

- Built a Convolutional Neural Network model to detect distractions while driving and crafted a scoring mechanism for the drivers that can be used by insurance companies to set pricing plans to avoid gender/age bias.

Face Mask Violation Detection

- Built a highly available and scalable web application to detect face mask violations in an uploaded video using AWS Rekognition, Lambda, SQS, RDS, S3, ECS, and Load Balancer.

Handover Optimization in 5G Network Using Reinforcement Learning

- Wrote a paper and implemented a reinforcement solution that optimized the number of handover connections in a custom 2D grid world environment having 5G antennas using Q Learning.

Optimal Logistics Routing for Drones

- Implemented a time and resource-efficient solution to find the optimal route for drones to deliver from a warehouse to different locations using the concept of the traveling salesman technique.

SKILLS

- **Programming Languages:** Python, JAVA, C++, HTML, CSS, SQL, Go, Rust
- **Database:** PostgreSQL, MySQL, BigQuery, MongoDB
- **Frameworks:** React, Angular, Javascript, NodeJS, Django, Flask, Selenium, Tailwind, Express, Rocket, Revel
- **AWS services:** S3, DynamoDB, RDS, Lambda, Elastic Load Balancing, EC2, ECS, Rekognition, Forecast
- **Tools:** Git, Heroku, JIRA, Bitbucket, Docker, Kubernetes, Ansible
- **Methodologies:** Agile, Scrum, Test Driven Development

CERTIFICATIONS

- SAFe® 4 Practitioner
- Google Fundamentals of Digital Marketing
- The Data Science Course 2023: Complete Data Science Bootcamp, Udemy