

# Kausik Amancherla

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## Work Experience

### Amazon Inc : Software Development Engineer

GoLang, Java, terraform, AWS lambda, kubernetes

Feb 2022 - Present

- Working on Amazon distro for opentelemetry (ADOT) under AWS observability org and opentelemetry.
- Helped deploy the observability agent as a service internally and scaled it up to handle over 500M requests/min with 99.8% SLA . Also helped various external customers on deployment and scaling issues.
- Contributed to open source observability tools under opentelemetry by building CI/CD pipelines using github actions, terraform and AWS cloud-formation. This also included building validation tools in java.
- Worked on building language framework SDKs for the observability agent. Also am a maintainer for the opentelemetry python SDK libraries.

### Research Assistant : Mobile and Robotic Systems Lab

Embedded Systems, Azure Cloud, IOT, Data Pipelining

May 2021 - Dec 2021

- Collaborated with researchers from Departments of CS, GeoScience, and Physics on **Radon Detection testbed Research** (NSF Grant)
- Investigated Radon propagation by engineering a Sensor nest ( Raspberry Pi,Arduino )that measures various parameters at different topographies.
- Designed a data pipeline to store all live result data asynchronously on **Azure cloud using Azure - IOT edge and stream analytics.**
- Upscaled 200 nest devices with **100% data redundancy** through a 3-layer data storage architecture, obtained **99.8% accuracy.**

### Facebook EIR : Teaching Assistant

CSC 4520 (csc4520.org), Algorithms,Data Structures, Java

Jan 2021 - April 2021

- Facilitated a class of 170 students, teaching intricate concepts of **algorithms** to help students analyze and solve problems.
- Assisting students during Office Hours, Code reviewing and assessing their assignments through Github pull requests, and actively clarifying queries on Piazza.
- Streamlined grading methodology using Github auto graders, Java Unit Testing, shell scripts, and Python Pandas **reduced manual interference by 70%.**

### Research Intern : Defence Research and Development Organisation, India (DRDO)

Python, OpenCV, Deep Neural Networks, Secure AI

May 2019 - July 2019

- Collaborated on the project - **Facial Recognition System** with the Advanced Systems Laboratory (ASL) team, devised a model using deep neural network architecture in OpenCV to detect potential intruders with an **accuracy of 91%**
- Programmed an optimal algorithm for building robust AI through Adversarial training and encrypting employee data.

## Technical Skills

|                        |  |
|------------------------|--|
| Languages              | Golang, Java, Python, JavaScript, SQL, Kotlin  |
| Frameworks & Libraries | Spring Boot, React, Spark, Pandas, NumPy   |
| Cloud & Infrastructure | AWS (Lambda, CloudFormation, ECS/EKS), Azure (IoT Edge, Stream Analytics), Terraform, Docker, Kubernetes |
| Tools & DevOps         | Git, GitHub Actions, OpenTelemetry, Prometheus, Grafana, CI/CD Pipelines                                 |
| Databases              | DynamoDB, MySQL, MongoDB   |

## Education

### Master of Science in Computer Science

Georgia State University, Atlanta

Aug 2020 - Dec 2021

### Bachelor of Technology - Computer Science and Engineering

GITAM University, India

Aug 2016 - May 2020

## Projects

### Apple News Forum

applegossips.com

- Co-founded an Apple news outlet. Developed using Node.js, MongoDB and CRUD REST APIs

### Querying Student data using Virtual Assistant

- Remodeled a Virtual Assistant that queries student data from the university's website to give the user vocal information. Built by web scraping using BeautifulSoup, XML Parsing, REST API which is deployed on Google Cloud platform.