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 an 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 Virual 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 Beautiful-soup, XML Parsing, REST API which is deployed on Google Cloud platform.