# **ADITHYA EMBAR**

#### Work Experience

AMAZON | SOFTWARE DEVELOPMENT ENGINEER | SUNNYVALE, CA| SEPTEMBER 2022 - JANUARY 2023

- Worked on the Data Ingestion component of the Product Safety Compliance Risk and Remediation Team(PSC-RIR).
- Created Low level design (LLD) documents on data filters to filter out test data to downstream consumers of services.
- Used JavaScript to develop/adjust alarm and metric graphs for custom data metrics In AWS Cloudwatch dashboards that were used by oncall to measure system performance. Demoed dashboard to org.
- Migrated our team's Andes datalake tables using Python and SQL to use a different dataplane platform type and verified ETL workflow through use of AWS Services.
- Developed Manual/Python based Automated Unit tests for verifying traffic flow for team's main product.
- AWS Service Experience: S3, Lambda, Glue, DynamoDB, SNS, SQS, API Gateway.

#### PALO ALTO NETWORKS | SOFTWARE ENGINEER IN TEST INTERN | SANTA CLARA, CA| JUNE 2021 - SEPTEMBER 2021

- Contributed to the Next Gen Firewall QA team's Data Loss Prevention (DLP) test suites with Python based solutions.
- Used Selenium and WebDriver to automate operations on SaaS applications and blocking actions as per data leak policies.
- Automated the workflow activity of a typical SaaS user on a web browser in Ubuntu VM.
- Used Python to develop automation scripts to compose/send email, programmatically upload files to google drive and HTTP/HTTPS websites, launch and terminate Selenium server using Paramiko, capture and manage debug screenshots.

#### MESH7(now part of VMware) | SOFTWARE ENGINEERING INTERN | SANTA CLARA, CA| JUNE 2019 - SEPTEMBER 2019

- Rebuilt an existing cloud based microservices demo web application for a Cloud/IoT security startup
- Developed a web application leveraging Node.js and BootStrap frameworks, microservices, HTTP protocols, Go, Docker, and Git.
- Deployed microservices web application through AWS Elastic Kubernetes Services.
- Implemented tests to check semantic issues in OpenAPI YAML files using Python and a YAML parser.

#### Education

#### M.S., COMPUTER NETWORKING | UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA) | FALL 2023 - PRESENT

#### <u>Relevant Coursework:</u> Large-Scale Machine Learning, Internet of Things: Connectivity and Sensing

#### B.A., GEOGRAPHIC INFORMATION SYSTEMS minor in INFORMATICS, DATA SCIENCE | UNIVERSITY OF WASHINGTON | 2018- JUNE 2022

<u>Relevant Coursework</u>: Data Structures And Algorithms, Algorithms And Computational Complexity, Artificial Intelligence, Intellectual Foundations of Informatics, Advanced Data Science Methods, Intermediate Programming Concepts And Tools, Statistical Methods in Engineering and Science, GIS and Mapping, Advanced Digital Geographies, Matrix Algebra, Differential Equations

#### **Relevant Projects**

#### COMPUTER BASED LIP READING RESEARCH

- Developed a Python based Lip Reading Visualizer using OpenCV and Pandas library for University of Washington Medical Center.
- Detected facial landmarks from input video and overlaid mouth region for further calculations.

#### PATH FINDING ALGORITHMS VISUALIZER | WEBSITE, GITHUB

- Used Javascript, HTML and CSS to build an user interactive React application for visualizing Pathfinding algorithms.
- Implemented a wall blocking feature and Dijsktra's, A\*, DFS, and BFS algorithms.

#### SORTING ALGORITHMS VISUALIZER | WEBSITE, GITHUB

- Used Javascript, HTML and CSS to build a user interactive React application for visualizing Sorting algorithms.
- Implemented a scale to control the speed/size of the array sorting and Merge, Quick, Heap and Bubble Sort algorithms.

#### PREDICTING THE BEST SEQUENCE OF TREATMENT FOR CANCER PATIENTS

• Developed a Python based statistical learning model on clinical data set to maximize patients' lifetimes by minimizing the toxicity of treatment. Used techniques in machine learning such as linear regression.

#### **Services and Awards**

## University of Washington's Annual Dean's List 2020-2021: Achieved quarterly dean's list for all quarters in a year.

## Eagle Scout

### Core Skills

- Coding skills: Python, Java, HTML, UNIX Shell Scripting, OpenAPI, XML, OpenCV, Paramiko, SQL
- Debugging: Valgrind, GDB, memory leaks, Buffer Overflow
- Algorithm analysis: Asymptotic analysis, P and NP complexity classes.
- Data Analysis skills(python): Pandas, Multiple and Logistic Regression, Confidence Intervals, Numpy, Stats Models, Matplotlib

#### Areas of Interests

MACHINE LEARNING, AUTOMATION, ARTIFICIAL INTELLIGENCE, CLOUD COMPUTING, COMPUTER NETWORKING & SECURITY