Aditya Kishore

Los Angeles,CA | (213) 300-3965 | adityaki@usc.edu | LinkedIn: Aditya |GitHub: BATspock **|** Portfolio

EDUCATION

University of Southern California, Viterbi College of Engineering   **January 2022-December 2023**
Master of Science Computer Science (Artificial Intelligence)   CGPA : 3.67/4
Relevant Coursework: Analysis of Algorithms, Web Technologies, Introduction to Artificial Intelligence, Natural Language Processing, Digital Image Processing, Deep Learning, Machine Learning

R.V. College of Engineering, Bangalore, India   **August 2015-June 2019**
Bachelors in Engineering Computer Science and Engineering   CGPA : 8.89/10

SKILLS

- **Languages:** C, C++, Python, Java, HTML, CSS, Javascript (Angular, NodeJS), TypeScript
- **Tools and Frameworks:** ROBOT, Deployment Tools (AWS lambda and Dockers), ML libraries (TensorFlow 2.0, Keras, PyTorch, OpenCV), Database (InfluxDB), Dashboard Development (Grafana), Telemetry (gRPC, Telegraf), Amazon AWS EC2, open edX, Android Studio (Java)
- **Hardware and Operating Systems:** RHEL (Red Hat Enterprise Linux), Ubuntu, Windows 8,9,10, Cisco platforms (NCS, ASR, Nexus), Internetwork Operating Systems (IOS, IOS-XE, IOS-XR)

WORK EXPERIENCE

Software Development Engineer Intern   Seattle, USA
Amazon (People Experience and Technology, PXT)   **May, 2023-Present**
- Design data pipeline on native AWS (NAWS) to automate the extraction and modeling of sprint execution data
- Pipeline creation using AWS services such as Lambda, Redshift, CloudWatch, etc., for data analysis and data visualization

Graduate Research Assistant/Machine Learning Student Worker   Los Angeles, USA
University of Southern California (USC Libraries)   **September, 2022-Present**
- Developed an automated process on AWS cloud utilizing OpenAI Whisper and pyAudio to generate srt files for video files
- Developed end to end pipeline to identify and obfuscate sensitive data from video files, cutting labor hours by more than 50%
- Developed software pipelines for a contrastive grant study, analyzing biases in publicly available Large Language Models (LLMs) and custom-designed chatbots, while also creating a dataset and building a ChatGPT-based chatbot for underrepresented groups using lama-indexing and langchain

Software Engineering Consultant   Bangalore, India
Vision Empower Trust (Non-Profit Organization)   **October 2021-November 2021**
- Migrated organization's MOOC (Massive Open Online Courses) backend server to AWS EC2 (Ubuntu)
- Automated content upload process to improve scalability using python and open edX. This helped the organization to expand to 10 regional schools for the visually impaired and receive donations in excess of $85,000 from Microsoft
- Co-led development of an Amazon Alexa skill using NodeJS, AWS S3 buckets, and deployed using AWS Lambda to assist visually impaired users navigate organization's website and content

Consulting Engineer   Bangalore, India
Cisco Systems (Solution Validation Services)   **July 2019-June 2021**
- Reproduced and tested enterprise network for Goldman Sachs. Performed Operating System upgrades and automated testing using ROBOT framework to identify bugs and test new features for network deployments. Team's efforts led to subscription renewals worth more than 100,000 USD and contributed close to 5% of the entire team's revenue
- Created custom text corpus for Cisco bug scrubbing process, used various vectorization techniques for tokenization and data preparation
- Developed dashboards to display live telemetry data from multiple routers leveraging gRPC, influxDB, Grafana, KNIME and dockers
- Co-led development of a Natural Language Processing tool to reduce time taken for manual bug scrubbing process. The tool resolved more than 70% of bugs and decreased bug processing time by 80%

Research Intern   Bangalore, India
International Institute of Information Technology, Bangalore (IIITB)   **January 2019-May 2019**
- Developed an unsupervised texture-based image segmentation algorithm called TextonsSeg. Open-sourced and deployed the algorithm on the global python repository (PyPi). Worked to convert 2D diagrams to 3D tactile models.

Consultant   Bangalore, India
Ugam Analytics   **May 2018-July 2018**
- Developed full stack web app with OpenCV-based backend for SKU detection, worked with Siamese LSTM for semantic text comparison

PROJECTS

Drone Software for Object Detection, Localization and Multiple Ground Stations Transmission
- Built software to identify alphanumerics from live drone image feed and tag geolocation to identified targets
- Implemented code to tap drone's UDP data stream to forward packets to multiple ground stations for separate processing tasks

Evaluation of Spatial Correctness of Text to Image Models
- Expanded Microsoft VISOR benchmark for multi object and multi directional spatial prompts.
- Benchmarked DALLE-2, StableDiffusion, Pix2Pix and DiffEdit on their performance on generating spatially correct images.

LEADERSHIP AND INVOLVEMENT

- Team captain and Image processing subsystem lead for Project Jatayu. Team ranked 50th (2018) and 27th (2019) internationally in AUVSI SUAS (Association for Unmanned Vehicle Systems International - Student Unmanned Aerial Systems), an autonomous drone competition
- Taught an introductory course to Artificial Intelligence, at MyCaptain by The Climber, to over 200 students
- Active Member of Effective Altruism(EA) Chapter at USC, interested in existential threats posed by AI