Amrit Krishna Omprakash

(667) 434-7393 • aomprak2@jh.edu • GitHub • LinkedIn
3900 North Charles Street, Apt 812, Baltimore MD, USA
Work Authorization: F1 CPT

EDUCATION

MSE Computer Science, JOHNS HOPKINS UNIVERSITY | Baltimore, MD, USA   **Expected 2025**
Relevant coursework: Deep Learning, Machine Translation, Software System Design, and Introduction to Algorithms
Relevant experience: Course Assistant for the Databases(EN.601.315/415/615) course at the Department of Computer Science, Whiting School of Engineering

B.Tech Computer Science And Engineering, VELLORE INSTITUTE OF TECHNOLOGY | Chennai, India | CGPA: 9.12/10   2021
Relevant coursework: Machine Learning, Parallel and Distributed Computing, and Internet of Things

WORK EXPERIENCE

Arcadia | Chennai, India
Software Engineer 2   **April 2023 - July 2023**
- Streamlined internal operations by enhancing error detection and ticket generation software systems, resulting in a 4% increase in efficiency through reduced data redundancy within the operations team
- Directed Python, AI, and ML training sessions, upskilling the engineering team
- Conducted interviews to assist the recruitment team in screening qualified candidates for Python developer positions
- *Tech Stack*: **Python, Java, Spring Boot, AWS cloud, Docker, Scikit-learn, Pandas, SQL, and Jenkins CI/CD**

Software Engineer 1   **July 2021 - March 2023**
- Architected, developed, and deployed a novel ML/NLP-based solution, improving the reliability of the company's data pipeline by 10% and addressing a critical requirement for one of its biggest customers. The solution is currently in the process of being **patented**
- Optimized and incorporated additional functionalities into RESTful API-based error control systems, resulting in a 3% increase in the throughput of the operations team by minimizing manual interventions
- *Tech Stack*: **Python, Java, Spring Boot, AWS cloud, Docker, Scikit-learn, Pandas, SQL, and Jenkins CI/CD**

Software Engineering Intern   **December 2020 - June 2021**
- Spearheaded the initiative to upgrade a legacy internal application from monolithic to microservice architecture, leading to a 4% increase in the system's reliability and providing a more robust software ecosystem at the company
- *Tech stack*: **Java, Spring boot, Play framework, HTML/CSS/Javascript, Angular JS, SQL, Gradle, and Shell Scripting**

Jasptial Digital Services | Delhi, India
Machine Learning Intern   **May 2020 - June 2020**
- Developed a Python web application to identify toxic comments using Deep Learning and served the model as an API, leading to improved content moderation and a better user experience
- Utilized 1D-CNNs and Glove embeddings to attain an accuracy of 89% on test data
- *Tech Stack*: **Python, Keras, Pandas, NLTK, Flask, HTML/CSS/Javascript, and Heroku cloud**

COURSE PROJECTS

HumorMeme: Meme caption generator - Python, PyTorch, Keras, Pandas, Numpy
- Created a Generative Deep Learning model employing a CNN encoder with LSTM and transformer decoders to generate humorous meme text captions from images. Achieved 158.94 perplexity and 0.33 BLEU score on test data

Assistive Device For Sign Language Recognition - Python, Tensorflow, Keras, OpenCV
- Designed a Python application to translate sign language symbols to text in real-time video feeds, achieving a 90% test accuracy using Inception V3 CNN trained on the ASL (American Sign Language) dataset

Detection of Poor Telecom Connectivity Regions - Python, Pandas, Sklearn, Flask, AppInventor
- Detected regions with poor telecom connectivity (cellular) by predicting user device signal strength using ML. The model was built on spatial data collected, and interactive maps were used to visualize cellular service strength

SKILLS

- **Core Competencies:** Full Stack Development, REST API design, Machine Learning, NLP, and Microservice architecture
- **Programming Languages:** Java, Python, C++, Javascript, Shell Scripting
- **Framework and tools:** AWS Cloud, Spring Boot, Play Framework, Gradle Build Automation, Jenkins CI/CD, Git, Kubernetes, Docker, PyTorch, Keras, Scikit-learn, Node.js, HTML/CSS/Javascript, SQL, Angular, and PowerBi

CERTIFICATIONS & ACHIEVEMENTS

- **Certifications**: REST-API Design and Fundamentals: PayPal value-added program, Machine Learning By Stanford University, Machine Learning A-Z by Udemy, IBM Data Science Professional Certificate - Specialization
- **Achievements**: Winner of multiple "Employee of the Month" and appreciation awards at Arcadia, Led a team of 6 to Smart India Hackathon 2019 and 2020 Finals (India's biggest Hackathon)