Akhash Senthil Kumar

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EDUCATION

Arizona State University — Tempe, AZ
Master of Computer Science — *Aug. 2023 – May 2025*

Anna University (Rajalakshmi Engineering College) — Chennai, TN
B.E Computer Science & Engineering — *Aug. 2019 – May 2023*

EXPERIENCE

Back-End Engineer Intern — May 2024 – Aug 2024
Flow Global Software Technologies — *Austin, TX*
- Integrated Salesforce and HubSpot CRMs into Flow Turbo, a SaaS AI Sales Prospecting Platform, leading to a 30% increase in sales.
- Led the integration of HubSpot OAuth 2.0 for secure authentication, reducing security breaches by 40% and enhancing user data protection for 100+ customers.
- Developed REST APIs for HubSpot activity tracking, logging and contacts retreival using Django.
- Created **low-level architecture diagram** and **database design** for Flow-Turbo, prioritizing scalability, data integrity, and performance optimization, thereby a 20% decrease in response time and improved system reliability.
- Collaborated with a cross-functional team of 5 engineers and product managers to deploy scalable backend infrastructure using AWS, reducing system downtimes by 20%.

Software Developer Intern — Dec 2021 – June 2022
AnDnR Soft Solutions — *Chennai, TN*
- Worked on a cross-platform app using Flutter for **real-time boat monitoring**, ensuring seamless functionality.
- Designed **GPS tracking** and **Geo-fencing system**, reducing theft likelihood by 66% through realtime alerts.
- Optimized API configurations and fixed bugs in MQTT module, reducing sensor data retrieval time by 4 seconds.
- Performed real-time **data analysis dashboards** and visualizations using Python for improving decision-making.
- Utilized IoT devices to transmit data to a **centralized cloud server**, thereby a 30% reduction in inspection time.

Machine Learning Engineer Intern — June 2020 – Aug 2020
Verzeo Edutech — *Chennai, TN*
- Created image detection system using **relevance feedback** and ResNet architecture, achieving 89% precision.
- Implemented image search algorithm using **Locality Sensitive Hashing** and **Personalized PageRank**, resulting in a 25% performance improvement over the previous implementation.
- Executed advanced sentiment analysis on Twitter data, evaluating over 50,000 tweets to gauge audience reactions; informed content strategy adjustments that resulted in an increase of 20% in user retention within one quarter.

PROJECTS

Sign Language Interpreter Using LSTM | *Java, Python, Pytorch, Pandas* — December 2022 – March 2023
- Led a team of 3 developers to build a sign language interpreter using LSTM, improving communication for the hearing impaired by 30%.
- Developed Android app in Java using LSTM to enable **real-time communication** with hearing impaired people.
- Devised the **RNN** model using ASL, achieving a 44% improvement in communication with disabled individuals.
- Integrated Google Cloud Translation API, increasing user base by 50% through multi-language support.

RFID-Enabled Automated Billing System | *IoT, NodeMCU, Flutter, RFID* — April 2022 – June 2022
- Achieved automated billing system using **IoT** (NodeMCU, EM18, I2C) and RFID, reducing billing time by 40%.
- Revolutionized checkout process by seamlessly integrating RFID tags into items, enabling **automatic scanning**.
- Introduced **anti-shoplifting system** by using weight sensors in aisles and carts for item presence detection.
- Constructed mobile app using Flutter for viewing items and payment, resulting in a 30% increase in transactions.

SKILLS

Languages: Python, JavaScript, Java, C, C++, Dart, PHP, BASH, SQL
Frameworks: Django, Flutter, Node.js, Express.js, React, Flask
Tools & Databases: Git, Docker, Postman, AWS, Grafana Loki, MongoDB, PostgreSQL, MySQL
Libraries: Pandas, Numpy, Pytorch, Tensorflow, OpenCV, Pytest, Sklearn, Matplotlib