

ASHWIN SENTHIL ARUMUGAM

+1(582) 203-8086 | State College, PA

ashwinsenthil63@gmail.com | <https://www.linkedin.com/in/ashwin-senthil/> | <https://github.com/ashwin63>

SKILLS

Languages and Frameworks Java, JUnit, Rest Api, Odata Api, SQL, ReactJS, AngularJS, NodeJS, Python
Tools and Technologies AWS, Docker, Tensorflow, PyTorch, BOPF, Android, UI5, Fiori
Developer Tools Git, CI/CD, TDD, Agile, Postman, SaaS, Linux, Deep Learning

EXPERIENCE

SAP

Associate Developer

Bengaluru, India

Jul 2020 - Jul 2023

- Developed and optimized 3 front end and back end modules in SAP Public Cloud, using Java, JavaScript, ABAP to display freight agreements.
- Led the development of OData and REST APIs using Test-Driven Development (TDD) to automate the transfer of transportation costs from external system to SAP Cloud system, reducing manual workload by 50%.
- Revamped the system and database architecture of a legacy module in SAP TM, leveraging CI/CD pipelines to achieve a 90% improvement in quotation determination speed from rate tables.
- Built an enterprise Machine Learning model with 80 percent accuracy using Python to extract key information from emails and text to automatically populate enterprise applications in SaaS solutions.

Samsung

Deep Learning Intern

Bengaluru, India

May 2019 - Jul 2019

- Performed in-depth analysis of three-page ranking algorithms on a large-scale dataset, verifying the precision of the top 10 most relevant results.
- Built an efficient neural network-based page ranking model, trained on a dataset with millions of entries, achieving 90% accuracy in ranking search results, even for incomplete queries.

RESEARCH/OPEN SOURCE PROJECTS

5G Network Fuzzing |GoLang,Python,5G Network Implemented feedback-driven testing in 5G microservices, achieving 5% better code coverage compared to state-of-the-art black-box fuzzers. This approach uncovered critical and deep vulnerabilities in 5G network components.[\(GitHub\)](#).

KV Paxos |GoLang, Multithreaded programming Developed a distributed key-value store using the Paxos protocol, leveraging multithreaded programming to ensure high data consistency and fault tolerance[\(GitHub\)](#).

CEG Prints|Android, Java, Python Flask, Firebase Engineered an android app and a Flask server to enable wireless printing from mobile devices in local stores. Published in PlayStore resulting in over **4k** downloads, this project received an award from tech forum club in Anna University[\(GitHub\)](#).

Accessible web application |AngularJS, JQuery, NodeJS, JDBC, SQL Collaborated with an NGO to develop an accessible web application for users with physical impairments, enabling full navigation using only left mouse click.

AI image classification Led a team of three to implement and train a Vision Transformer model using Transfer Learning, achieving 80% accuracy in classifying Real vs. AI-generated images[\(GitHub\)](#).

EDUCATION

Master of Science in Computer Science and Engineering

Pennsylvania State University | University Park, PA

Expected Apr 2025

GPA: 3.78/4

Bachelor of Technology in Information Technology

College of Engineering Guindy, Anna University | Chennai, India

Aug 2016 - Apr 2020

GPA: 8.43/10