

# ANNAMALAI ARUMUGAM

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## EDUCATION:

Master's in Computer Science **(3.75/4.0 GPA)**  
Bachelor's in Information Technology (First Class + Distinction)

**(2022-2024)** Cal State University, Fullerton, CA  
**(2012-2016)** SASTRA University, India

## WORK EXPERIENCE

### Senior Software Developer, Viasat Inc - Chennai India

08/2019 - 08/2022

- Developed Microservices and its associated API using Spring boot MVC that includes multiple GET/PUT/POST API calls for service chaining in data centre networking - 5X increase Connectivity in new modem deployment.
- Implemented VNC obfuscation for the remote console VNC using Django and Flask API, Enabled HTTPS security and migrated telnet console connection from HTTP to HTTPS - Increased security up to triple times than former connections.
- Designed new portfolio pages for Viasat cloud applications using HTML, CSS and angular 14. x - Improved page rendering and clients were impressed with the new MVC rendering.
- Created a Speed check application including an IPERF speed test, and Wifi range finder using Django MVC - Improved the Modem device's performances and helped the business to attract close to 5k New customers.
- Technologies: **C, Go, Python, Java, Spring MVC, Django, Flask, Angular, Docker AWS, GIT, Nginx, Apache.**

### Software Developer, Viasat Inc - Chennai India

01/2018 - 07/2019

- Involved in the creation of MEAN stack for newcomers to work with their own developer portal and then automated to push their code changes directly to staging environment - This resulted in a 10x improvement in developer productivity and QA team efforts.
- Developed RBAC API and User access requests API calls for ViaStack Cloud system - Saved RBAC manual verification processes.
- Invented a POC using Kubernetes and Docker to initiate active-active RabbitMQ clustering and containerizing brokers for efficient scaling and management - Scaled the system's ability to handle up to 10k concurrent requests in under 300ms.
- Technologies: **MEAN stack, Mongo DB, Angular, QEMU, KVM, Terraform, MQTT, Python, Grafana, ExpressJS, Node JS.**

### Associate Software Developer, Genesys Telecomm Labs - Chennai, India

06/2016 - 12/2017

- Using SDK toolkit to create customized softphones for contact centre agents, Developed new web softphones based on given requirements using SIP Protocol and WEBRTC packages - More than 10k+ contact centre agents using these softphones and solving customer requests.
- Spearheaded IVR strategy design tool that is built on JAVA and .NET. Part of the tool team and designed several IVR flows for production. Increased business by up to 20k\$ per year.
- Technologies: **Python, SIP Server, Java, .NET, WEBRTC, SCXML, CUCUMBER, ROBOT, Jenkins, Chef.**

### Application Developer Intern, Vmware Inc, Bangalore, India

01/2016 - 06/2016

- Created a machine learning and artificial intelligence tool to predict future IT ticket escalation based on finding historical patterns.
- Built the model with Java and the ENCOG ML framework along with Weka as the data analysis tool, Applied SMOTE and Random Forest algorithms to the current dataset using the MLP neural network.
- Sketched a UI/UX interface for the machine learning model using JSPs, servlets, Angular and the Spring MVC framework to display the predicted data.
- The final plugin was added to the VMware IT support desk portal to predict customer tickets and saved up to 10K escalations which are extensively used by business teams.

### Master's Academic Activity: Independent Graduate Researcher

08/2022 - 12/2022

- Project completed in modern software management course, Research against automated driving cars inclusion of double lane detection in freeways and few other smart intrusion detection systems on active cruise control.
- Under Guidance from Professor Dr Goffman and the Digiclips product team implemented video-to-text recognition in the TV backend module of the digiclips product.
- Utilized FFMPEG video recording adapters, Mysql and Docker containers to convert the recorded conversation to text which is useful for their clients for legal purposes - Increased Digiclips sales up to 20K\$.

## AWARDS & CERTIFICATIONS:

- AWS Certified Engineer • Elite NPTEL Certified Programmer • Plural sight certified Machine Learning Engineer.**
- Viasat 2020 All India hackathon winner • Top 10k Programmer in Hackathon - <https://www.hackerrank.com/MALAI007>**