

AMIRTHA VARSHINI A S

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EDUCATION

Georgia Institute of Technology Masters in Computer Science	August 2023 - Expected
National Institute of Technology Tiruchirappalli B.Tech in Electronics and Communication Engineering	July 2014 - May 2018 Overall GPA: 8.90/10

EXPERIENCE

Software Engineer in Qualcomm (Automotive Domain) July 2018 - August 2021

- Developed safety-critical watchdog and ramdump process for QNX RTOS on Qualcomm ADAS chipsets
- Worked on FastRPC feature allowing clients to utilize DSP from Main Processor/HLOS
- Created parser in Python to extract info from system ramdumps and debugging crashes resulting from stability testing. Automated the process resulting in 30% reduction of effort

Summer Internship in Microland May 2017 to July 2017

- Programmed a website as an interface to the local admin portal for performing Microsoft Office 365 Admin activities and customized Skype for Business report generation.
- Automation using Powershell scripts and extracted data from Office 365 Reporting web service.

Winter Internship in Extreme Networks Nov 2016 to Jan 2017

- Automated the task of configuring VLAN in switches using Tcl scripts and monitored network connection using Ixia Traffic Generator.
- Developed a website for viewing the status of test cases to ensure the correct working of LAN switches

Summer Internship at Eishaa Networks May 2016 to July 2016

- Modelled an Accident prediction system based on metrics like driver's blink rate and alcohol level using the Mega Trend Diffusion (MTD) Algorithm in OMNET++ Framework.

PROJECTS

Bonus Coursework of 18-661 Intro to ML for Engineers May 2020 - July 2020
Summer remote course from CMU

- Clustering of COVID-19 Data and Modeled the growth rate of COVID in the states of USA
- Implemented a decision tree to predict user's liking of a track with Spotify Dataset
- Implemented a Multi-layered Perceptron based system to classify Fashion-MNIST dataset

Low-cost intelligent vision in automotive (LIVA) June 2019 - Oct 2019
Qualcomm Maker's Challenge Qualcomm, Bengaluru

- Collected dataset of depth images using Kinect V2 mounted on a moving car
- Performed object detection in real-time to recognize pedestrians and vehicles using retrained YOLO V3 model with depth images and Coco dataset. Converted models to DLC format to run inference on Linux Vehicle platform using Qualcomm SNPE (Snapdragon Neural Processing Engine)

Real-Time Hand Gesture Recognition system Jan 2018 - May 2018
Bachelor's Thesis NIT Trichy

- Built a real-time hand gesture detection system by retraining Inception V3 Architecture
- Based on gestures, controlled home automation setup and a custom-built robotic arm
- First author of a paper presented in 2nd International Conference on Frontiers of Artificial Intelligence and Machine Learning and published in ACM ICPS -<https://dl.acm.org/doi/10.1145/3459104.3459142>

SKILLS

Programming:	C, Python, Familiar - C++, HTML, CSS, PHP, MySQL, Tcl, Powershell
Platforms:	Linux (Ubuntu), QNX RTOS, ARM V8 architecture
Packages:	PyTorch, OpenCV, Tensorflow, ScikitLearn, Flask

HONOURS, AWARDS AND ACADEMIC ACHIEVEMENTS

Recipient of **K. C. Mahindra Scholarship** for Post Graduate Studies Abroad , 2021

Project on '**LIVA**' funded for prototyping as one of the **top 6 finalists out of the 230+ applicants in Maker's Challenge of QBuzz 2019**, the annual technology conference of Qualcomm

Poster on 'Automated Bug Triage with ML' **selected for Qualcomm ML Summit'19**

Secured 120/120 on TOEFL and 332/340 in GRE

Received **two Qualstar recognitions** in Qualcomm for innovation and excellent delivery of results

Secured **First Place in Final Year Project Competition** organized by Sonata Software and Centre for Entrepreneurship Development and Incubation (CEDI) NIT Trichy in 2018

Secured **95th percentile in Graduate Aptitude Test in Engineering (GATE) 2018** and qualified in the stream of **Computer Science and Information Technology**.

Recipient of **AIEEE Merit Scholarship** for obtaining **All India Rank 1448 under 2000 (Top 0.1% amongst 1,350,000 candidates)** in JEE mains Examination, 2014

Among the **top 1 percentile in the country** in class 12 (AISSCE) examinations and qualified for **Scholarship for Higher Education (SHE) under (INSPIRE) program** ,2014

Was declared the **Best Outgoing Student** of my batch during class XII in 2013

One of 30 selected students to be part of the **Research Science Initiative at IIT-M, 2013**

Rajya Purashkar awardee in Bharat Scouts and Guides, 2013

COURSES

Data Structures And Algorithm	Deep Learning Specialization (Coursera)
18-661: Intro to ML for Engineers - Remote Summer course from Carnegie Mellon University	

POSITIONS OF RESPONSIBILITIES

Probe, ECE Department Symposium	Oct 2017 - Feb 2018
Head of Web Operations	NIT Trichy
· Created a website for the symposium leading my team and handled online registrations for around 1800 students from various colleges via the site.	
Spider, R&D club	April 2015 -April 2016
System Administrator	NIT Trichy
· Developed scripts in Bash and worked on Ubuntu. Learned SSH, FTP and Samba server configuration and Hosted the site for students dining hall allocation.	

EXTRA-CURRICULARS

Technical writer in online publications -Hackernoon, Towards Data Science	2019
Secretary and Co-Editor at Qonverse Toastmasters Club	2019
Intern in One Million by One Million, a global startup accelerator	2018
NSS-Excomm , Member of AIESEC in NIT Trichy and Engineers Without Borders	