

# AMIRTHA VARSHINI A S

@ amirtha255@gmail.com

📞 +91 9566129194

🌐 medium.com/@amirtha255

in linkedin.com/in/amirtha-varshini-58420baa

## EXPERIENCE

### Embedded Software Engineer in Qualcomm

📅 July 2018 - present 📍 Bengaluru, India

- Worked on FastRPC feature for QNX RTOS- a remote procedure call framework allowing clients to utilize the Digital Signal Processors (DSP) from Qualcomm Snapdragon processor
- Developed a utility to report system metrics like power consumption, temperature values, memory usage and chip-specific information for QNX on a new Qualcomm SOC
- Created parser in Python to extract info from system ram-dumps and debugging crashes resulting from stability testing

### Summer Internship in Microland

📅 May 2017 to July 2017 📍 Bengaluru, India

- Created visual dashboards to display dynamically extracted data from Office 365 Reporting web service and customized Skype for Business reports
- Programmed a local admin portal for performing Office 365 Admin activities using LAMP stack and Powershell backend

### Winter Internship in Extreme Networks

📅 Nov 2016 to Jan 2017 📍 Chennai, India

- Scripted the configuration of VLAN in switches using Tcl 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 📍 Chennai, India

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

## ACHIEVEMENTS

- Project 'LIVA' selected as Top 6 finalists in Maker's Challenge of QBuzz 2019, Qualcomm India's Innovation conference
- Poster on 'Automated Bug Triage with Machine Learning' selected for Qualcomm ML Summit 2019
- Received two Qualstars in tenure at 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 rank under 2000 (amongst 1.35M candidates) in JEE mains Exam, 2014
- Among the top 1 percentile in the country in class 12 (AISSE) examinations and qualified for Scholarship for Higher Education (SHE) under INSPIRE program ,2014
- Best Outgoing Student of my batch during class XII in 2013
- One of 30 selected students in Chennai to be part of the Research Science Initiative, 2013, conducted at IIT Madras
- Rajya Purashkar awardee in Bharat Scouts and Guides, 2013

## EDUCATION

B.Tech in Electronics and Communication Engineering - 8.90/10 CGPA

**National Institute of Technology Trichy**

📅 2014 - 2018 📍 Tiruchirappalli, India

## PROJECTS

### Low-cost intelligent vision in automotive (LIVA) | June - Oct 2019

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

### Real-Time Hand Gesture Recognition system | Jan - May 2018

- 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 interfaced with an Arduino Uno to the laptop
- First author of a paper accepted to be presented in 2nd International Conference on Frontiers of Artificial Intelligence and Machine Learning (FAIML - April 20-22, 2020 in Berlin, Germany) and will be published in ACM ICPS
- Accepted paper link - <http://bit.ly/2pk7zbF>

## SKILLS

- Languages : C, Python, C++, Tcl, Bash
- Web Dev : HTML, CSS, PHP, JS, MySQL
- Platforms : Linux, QNX RTOS, ARM V8
- Packages : OpenCV, Tensorflow, Flask, LAMP stack, MATLAB

## COURSEWORK

Data Structures & Algorithms, Operating Systems, 18-661: Intro to ML for Engineers - Remote course from Carnegie Mellon University

## EXTRA CURRICULARS

- Blog writer for publications like Hackernoon
- Head of Web Operations in Probe 2018, ECE Department Symposium
- System Administrator in Spider, RD club
- Interned in 1M1M, a startup accelerator.
- Excomm member at National Service Scheme, NITT and Volunteer in NGOs - AIESEC & EWB