

Hariharan Mathavan

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EDUCATION

MS IN COMPUTER ENG

BOSTON UNIVERSITY

Graduating in Jan 2019

GPA: 3.88

B.TECH IN ELECTRONICS & COMMUNICATION ENG

IIT GUWAHATI

2013 - 2017 | Guwahati, India

SKILLS

PROGRAMMING

C • C++ • C# • Java • Android • Python
Shell • Verilog • Assembly

HARDWARE

Arduino • Raspberry Pi • ODROID
BeagleBone • FRDM-K64F

SOFTWARE

MySQL • Matlab • Cadence • Xilinx ISE
LabVIEW • Spice • MultiSim

COURSEWORK

GRADUATE

Embedded Systems
Operating Systems
Data Structures & Algorithms
Connected Computer Eng
Product Design
Software Design
Cybersecurity*

UNDERGRADUATE

Computer Networks
RF IC Design
Hardware Design
Machine Learning

LINKS

Github:// [hariharan-m](#)
LinkedIn:// [hariharanmathavan](#)
Website:// [hariharanm.com](#)
Blog:// [hariharansblog.wordpress.com](#)

OBJECTIVE

Masters Computer Engineer looking for full-time positions in Linux System Programming and Embedded Firmware starting in January 2019

EXPERIENCE

COGNEX CORPORATION SOFTWARE ENGINEERING INTERN

June 2018 - August 2018 | Natick, Massachusetts

- Designed a system to tag, store and retrieve large collections of images.
- Coded a GUI which processed images with OpenCV and communicated with a MySQL Database using C#.

BU SPARK! - INNTECH TECHNICAL INTERN

Sep 2018 - Present | Boston University, Boston, Massachusetts

- Part of a start-up which aims to develop a kiosk interface for hotel check-ins.
- Working on prototyping a Login Interface with an electronic locker system for an automated check-in experience.

UNIFIED NETWORKS LAB RESEARCH INTERN

May 2016 - July 2016 | Hanyang University, South Korea

- Investigated routing protocols for IoT networks.
- Developed a simulation for RPL - Routing Protocol for Low Power and Lossy Networks using OMNET event simulator library for C++.

EYE-D RESEARCH INTERN

May 2015 - July 2015 | Bangalore, India

- Top 20 in the Intel-DST Innovate for Digital India Challenge
- Prototyped a Navigation cum Personal Assistant for the visually impaired consisting of an Android app and a smartphone add-on device.

PROJECTS

RECORD AND REPLAY FOR LINUX MASTER'S PROJECT

Sept 2018 - Present | PEACLab, Boston University

Developing a low-level framework to record system calls by any given application in order to orchestrate a replay for testing and debugging purposes.

X86 OPERATING SYSTEM

Jan 2018 - May 2018 | Boston University

Coded a x86 operating system from scratch which included a round-robin scheduler and a minimal file system.

KERNEL MODULE DEVELOPMENT FOR HOME AUTOMATION

Sept 2017 - Dec 2017 | Boston University

Developed a modular home automation system which uses secure Powerline Communication technology for inter-node transmissions.

VLC-RF HYBRID COMMUNICATION FOR THE WORKPLACE

Jan 2018 - May 2018 | Boston University

Prototyped a communication system which uses Visible Light Communication downlink and RF uplink on a NXP Development board running FreeRTOS.

FPGA VIDEO SURVEILLANCE BACHELOR'S THESIS

July 2016 - May 2017 | HPC Lab, IIT Guwahati, India

Designed a system which interfaces image sensors and implements a novel Object Tracking algorithm on an FPGA.