

Summary

I am self-motivated individual with extensive experience on embedded platforms. I believe in teamwork and have been a part of many projects and brought great concepts to completion. I am looking to work in an environment that allow me to work on latest technologies and bring new ideas to life.

Education

MASTER OF SCIENCE - COMPUTER SCIENCE (3.87/4.0)

AUGUST 2017 – MAY 2019 / BINGHAMTON UNIVERSITY

Wireless Sensor Networks, Visual Image Processing, Design Patterns, Design and Analysis of Algorithms, Programming for the Web, Computer Architecture, Operating Systems, Programming Language

BACHELOR OF ENGINEERING - COMPUTER ENGINEERING (3.5/4.0)

MAY 2017 / MUMBAI UNIVERSITY

Experience

RESEARCH (JANUARY 2018 - CURRENT)

STATE UNIVERSITY OF NEW YORK AT BINGHAMTON

Augmented Reality with ROS

- Working primarily to blend Augmented Reality alongside ROS to enhance Human Robot Interaction with Dr. Shiqi Zhang
- Using Unity and AR SDKs like ARCore with Robot Operating System to develop robust communication and elevate HRI
- Research also aims at bridging the gap between Human and Robot Intent sharing

Smartphone Power Management

- Designed and coded a root access-based Android power management system while working with Dr. Mo Sha
- Developed several patches for Android Kernel for optimization of power being used by mobile devices
- Future work aims at working with Wireless Sensor Networks and implementing such power management system

TEACHING ASSISTANT (AUGUST 2018 – DECEMBER 2018)

STATE UNIVERSITY OF NEW YORK AT BINGHAMTON

- Course: Intel Mobile Robotics.
- Handling several Turtle-Bots and creating scripts to grade assignments working on Turtle-Bots

RESEARCH PROJECT ASSISTANT (NOV 2017 – DECEMBER 2018)

RESEARCH FOUNDATION FOR SUNY

- Developed of Product Inventory System in PHP
- Assist with production of electronic communications
- Configure, deploy and support desktop, laptop, and associated software

Projects

SELF-DRIVING CARS WITH SMART TRAFFIC MANAGEMENT

PYTHON | RASPBERRY PI | TENSORFLOW | C++ | FEB 2018

- Autonomous intersection passage and Scheduling algorithm designed to take decisions on a centralized server
- Decision making system based on Neural Nets to allow maximum throughput and eliminate traffic lights
- TensorFlow was used and accuracy achieved was about 93% on a dataset of 10,000 images in simulated environment

PERCEPTBOT – A SELF AWARE ROBOT

JAVA | RASPBERRY PI | WOLFRAM ALPHA | APRIL 2017

- Designed a Robot's entire hardware and software which could follow human commands to performs tasks
- Features like Voice Recognition, Face and Object Detection were integrated to develop a fully functional Robot
- Wolfram Alpha, OpenCV, CMU Sphinx were used to provide additional functionalities as in Google Home and Amazon Echo

HOME SURVEILLANCE SYSTEM

RASPBERRY PI | PYTHON | MYSQL | OPENCV | NOV 2017

- Developed a Smart Security system to monitor the house which triggers alarm
- Security protocols in case of potential threat situation like notifying owner along with the camera feed for evidence
- Remote control of the house via Internet, Child monitoring and Visitor database were several other modules developed

OTHER PROJECTS: CPU SIMULATOR, IMAGE ENHANCEMENT USING EQUALIZER, FACIAL FEATURE EXTRACTION

Technical Skills

Skills: C++, Python, ROS, Java, ARCore, Tensorflow, PHP, Android, JavaScript, SQL, NodeJS, MongoDB

Hardware Acquaintances: Raspberry Pi, Turtle-Bots, Arduino, Telos B

Tools: Eclipse, IntelliJ, Git, Android Studio, Visual Studio, Microsoft Docs