Charlotte, NC

■ agupta40@uncc.edu

980-666-0648

f theguptaempire.net/about-me

EDUCATION

University of North Carolina at Charlotte - Charlotte, NC

M.S. in Computer Engineering

Aug. 2020 - Dec. 2022 (Expected)

Current Cumulative GPA: 3.830 / 4.000

B.S. in Computer Engineering Minor in Software Systems Minor in Mathematics Aug. 2016 – Dec. 2020

Graduated Cum Laude (GPA: 3.573 / 4.000)

WORK EXPERIENCE

Mosaic Computing / Personal Computer Support

IT System Administrator II

Aug. 2021 - Present

- Develop and maintain computing environment to support academic and research labs in the college
- Development included specialized embedded/high performance computing solutions to support HIL simulation

Provide support on the development of university-wide Linux-based services

IT System Administrator I

Feb. 2020 - Jul. 2021

- Provide support to the Mosaic managed desktop computing environment
- Oversee helpdesk support tickets with Tier 3 support
- Package engineering applications for deployment on Mosaic Windows desktops

Lead Technical Assistant

Apr. 2018 - Jan. 2020

Managed TAs in work environment

• Conducted interviews for potential TAs and Lab Roamers

RESEARCH AND PUBLICATIONS

(TBD) Risk Aware LTL Motion Planning with Reinforcement Learned Agent and Antagonist

Dr. Dipankar Maity, Ph.D. – University of North Carolina at Charlotte – Charlotte, NC

PROJECTS, RESEARH, AND CREATIVE ENDEAVORS

NASA University Student Launch Initiative

2019 – 2020

First Place Nationally Payload, Second Place Nationally Overall

- Designed, documented, and constructed a rocket (LV) with a quadcopter (UAS) payload
- Lead development of computer systems on UAS and LV
- Lead development of camera vision system to detect ice sample location from LV
- Assisted in design of UAS to retrieve a lunar ice simulant sample
- · Assisted design of deployment system to eject UAS out of LV during decent

TensorFlow Banana Presence Detector on IoT Arduino board

Spring 2021

- In a group, designed, trained, and tested a banana presence detector on a low powered Arduino ARM board
- Would detect presence of banana if placed in front of the camera
- Utilized Arduino Nano 33 BLE board with the OV7670 Camera

IoT Home Security System

Fall 2020

- Develop Android app, Raspberry Pi, API Server, and IoT sensors to remotely control and secure a home
- All applications and server code developed from the ground up using Python, C++, Java, PHP, and SQL
- Embedded IoT sensors communicated via Wi-Fi to Raspberry Pi dashboard
- Raspberry Pi dashboard synced up with API Server
- Android app controlled the activation of sensors and break-in alarm

SKILLS

Leadership Troubleshooting Problem Solving Communication Reverse Engineering Computer Networking Multithreading **Embedded Systems** Software Systems Assembly C++ Python Linux Ansible Git OpenCV Arch Linux ARM Java

EXTRACURRICULAR

Boy Scout, Boy Scout of America

Assistant Scoutmaster

Eagle Scout

Dec. 2019 - Apr. 2021

Feb. 2016

2008 - 2021

Apr. 2022 (Expected)

IEEE Eta Kappa Nu (IEEE-HKN) Chapter Member