# **Aryan Gupta**

Charlotte, NC

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f theguptaempire.net/about-me

# **EDUCATION**

University of North Carolina at Charlotte - Charlotte, NC

M.S. in Electrical Engineering

GPA: 4.0 / 4.0

B.S. in Computer Engineering Minor in Software Systems

Minor in Mathematics

Aug. 2016 - Dec. 2020

Aug. 2020 - Dec. 2022 (Expected)

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

Technical Assistant (TA)

Aug. 2016 - Apr. 2018

- Managed Mosaic computing environment and associated computers
- Assisted engineering students and faculty with computer related issues
- Managed redundant servers for software management and deployment

# PROJECTS, RESEARH, AND CREATIVE ENDEAVORS

#### NASA University Student Launch Initiative

2019 - 2020

National First Place Payload, National Second Place 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

#### Arduino-based Flight Controller

Summer 2018

- Independently designed and constructed an Arduino-based quadcopter
- Implemented custom I<sup>2</sup>C library for Arduino Nano to double performance from Arduino libs
- Reverse engineered iBUS protocol to interface with Arduino Nano using logic analyzer

## **Project Website**

http://theguptaempire.net

- Host slew of projects done by me (or partly by me) on my website
- Includes home lab setup, Raspberry Pi smart clock, mechanical keyboard build, and more

## **SKILLS**

Leadership **Problem Solving Troubleshooting** Communication Reverse Engineering **Embedded Systems** Assembly Computer Networking Multithreading C++ **Pvthon** Linux ARM Git OpenCV Arch Linux STM32 Java

# **EXTRACURRICULAR**

Boy Scout, Boy Scout of America

Assistant Scoutmaster

Eagle Scout

Senior Patrol Leader

2008 – Present

Dec. 2019 – Present

Feb. 2016

2015

49th Security Division

Jul. 2018 – Present

49er Rocketry and Projectile Society

Aug. 2019 – Present