

# Aryan Gupta

📍 Charlotte, NC

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🌐 theguptaempire.net/about-me

## EDUCATION

University of North Carolina at Charlotte - Charlotte, NC

M.S. in Computer Engineering

Aug. 2020 – Dec. 2022 (Expected)

GPA: 4.0 / 4.0

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

## RESEARCH AND PUBLICATIONS

Grad Thesis: (TBD) Robotic Motion Planning, Pathfinding, and Linear Temporal Logic

TBD

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

- TBD

## PROJECTS 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	Troubleshooting	Problem Solving	Communication	Reverse Engineering
Computer Networking	Multithreading	Embedded Systems	Assembly	
C++	Python	Linux	ARM	Git
			OpenCV	Arch Linux
				STM32
				Java

## EXTRACURRICULAR

Boy Scout, Boy Scout of America

2008 – Present

- Assistant Scoutmaster
- Eagle Scout
- Senior Patrol Leader

Dec. 2019 – Present

Feb. 2016

2015

49th Security Division

Jul. 2018 – Present

49er Rocketry and Projectile Society

Aug. 2019 – Present