**Aryan Gupta**

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**EDUCATION**transcripts available upon request

University of North Carolina at Charlotte - Charlotte, NC

*M.S. in Computer Engineering Aug. 2020 – May 2022 (Expected)*

*Current Cumulative GPA: 3.830 / 4.000*

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

*Graduated Cum Laude* (*GPA: 3.573 / 4.000)*

Ardrey Kell High School - Charlotte, NC *Aug. 2013 – Jun. 2016*

*GPA Weighted: 4.625 – GPA Unweighted: 3.5313 / 4.0000*

*Class Rank: 96 of 670*

Providence Senior High School - Charlotte, NC *Aug. 2012 – Jun. 2013*

**WORK EXPERIENCE** references available upon request

ENSCO Avionics, Inc.

*Embedded Software Engineer II Aug. 2022 – Present*

* Design tests to verify functionality of the fuel inerting system on the Airbus A321-XLR aircraft
* Utilize HIL testing to verify ICU operation based on the DO-178C verification process

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 (Part Time: 17-20 hr./week) Apr. 2018 – Jan. 2020*

* Managed TAs in work environment
* Conducted interviews for potential TAs and Lab Roamers

*Hardware Technical Assistant (Part Time: 20 hr./week) Summer 2019*

* Assisted in managing servers used by Engineering College
* Troubleshot machines for hardware issues
* Assisted other departments in issues

*Technical Assistant (TA) (Part Time: 17-20 hr./week) 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

Best Brains Tutoring

*Grader (Part Time: 4-8 hr./week) 2015 – 2016*

* Graded work completed by students

**RESEARCH AND PUBLICATIONS**

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

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

**PROJECTS AND CREATIVE ENDEAVORS** code available on GitHub

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 I2C library for Arduino Nano to double performance from Arduino libs
* Reverse engineered iBUS protocol to interface with Arduino Nano using logic analyzer

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, Web 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 with Raspberry Pi dashboard and synced up with an API Server
* Android app controlled the activation of sensors and break-in alarm

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**

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| --- | --- | --- | --- | --- |
| Leadership | Troubleshooting | Problem Solving | Communication | Reverse Engineering |

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| Computer Networking | Multithreading | Embedded Systems | Assembly |

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| C++ | Python | Linux | ARM | Git | OpenCV | Arch Linux | STM32 | Java |

**EXTRACURRICULAR**

Boy Scout, Boy Scout of America *2008 – 2021*

* Assistant Scoutmaster *Dec. 2019 – Apr. 2021*
* Eagle Scout *Feb. 2016*
* Senior Patrol Leader *2015*

49th Security Division *Jul. 2018 – Present*

49er Rocketry and Projectile Society *Aug. 2019 – Present*

IEEE Eta Kappa Nu (IEEE-HKN) Chapter Member *Apr. 2022*