

# NIMSY COREA

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## EDUCATION

University of Georgia | Athens, Georgia

December 2024

**Bachelor of Science in Computer Systems Engineering**

*Minors: Computer Science and Studio Art*

- **Relevant Coursework:** Biomedical Imaging, Informatics, Advanced Digital Design, Electronics, Embedded Systems, Sensors and Transducers, Design Methodology, Software Development, Systems Programming, Data Science, Data Structures, Computer Networks, Computer Architecture
- **Honors/Awards:** E. Dale Threadgill College of Engineering Leadership Scholarship, Georgia Commitment Scholar, HOPE Scholarship, Peach State LSAMP, TRIO, Lamar Dodd Art Show, First-Generation Georgia Museum of Art Gallery

## SKILLS

- **Programming Languages:** Java, C, C++, HTML, CSS, Python, MATLAB, Assembly, JavaScript, Bash, R, Verilog, React, Vite
- **Tools/Frameworks:** Arduino, Raspberry Pi, Microcontrollers, Git & GitHub, GitHub Pages, Soldering, Emacs, Unix, electrical test equipment, CAD, Fusion 360, Autodesk AutoCAD, Eagle, Maya, and Inventor, Multisim, Jira, Confluence
- **Certifications:** CodePath Advanced Technical Interview Prep, CodePath Advanced Web Design, Girls Who Code Technical Interview Prep with Deloitte and Work Prep with JP Morgan Chase & Co., MATLAB Onramp Certificate

## EXPERIENCE

VMware - *Workspace ONE Unified Endpoint Management Intern*

June 2022–August 2022

- Aided in implementing an auto-updating feature for the company software on a developmental Git branch alongside a mentor.
- Researched why Sparkle framework was used over Squirrel framework for macOS development and the benefits.
- Designed an educational poster on the design choices and presented to the Unified Endpoint Management Team.

University of Georgia - *College of Engineering Lab Assistant* | Athens, GA

September 2021–May 2022

- Designed a web application front-end for chicken coop safety with HTML, CSS, and JavaScript from 3 inputs to an AI model.
- Developed educational materials with a board game cover, modeled game pieces in Inventor, and edited game cards in Illustrator.

Meta - *Meta Spark Creator*

March 2022–April 2022

- Participated in a 6-week skill-building program that provided hands-on immersive training in AR effect creation in support of RCA's female music artists and their upcoming album releases, performances, and projects.
- Collaborated with cohort to create a bespoke AR effect for RCA recording artist Doja Cat using scripting via Meta Spark and Visual Studio Code and mixed reality technology, Gravity Sketch.

## PROJECTS

*Prototype Halbach Magnet Array MRI, Capstone Design Project*

August 2023–May 2024

- Contributed to developing a Halbach permanent magnet array in SLA 3D printing, providing a cost-effective way to achieve a magnetic field close to 0.3 Tesla, by iterative designs for magnet placement and angles through product development.
- Employed simulations through EMS, an electromagnetic field simulator, and a Halbach MRI Designer script to create parameterized CAD and FEM simulation files for wanted slice and magnet numbers in the MRI medical device from JSON files.

*Reaction Timer, Digital Design Final Project*

August 2023–December 2023

- Collaborated in a team of 3 to develop a RTL design on a state machine for a reaction time test on a Basys2 FPGA Board.
- Participated in testing Verilog files, using test cases by creating testbenches and simulations, for integration of the Pmod CLP 16x2 LCD display with the files for random value generation and clock dividing.

*Electronics Tool Bench, Design Methodology Course*

January 2023–May 2023

- Debugged and troubleshooted a hardware/software electronics tool bench on a RP4, including a voltmeter with an ADC, ohmmeter, function generator, and a power rail splitter through SPI & I2C communication protocols and GPIO I/O in Python.
- Managed project timeline and milestone progress by creating flowcharts for the specifications for the UI and restrictions on IC chips and collaborating as a team to work on a technical document and user manual in a GitHub pages website.
- Drafted PCB schematic and board files for the complete project, utilizing 3 layers for the ground, power, and data lines.

## INVOLVEMENT

*Co-Founder/President, DREAM (Disability Rights, Education, Activism, and Mentoring) at UGA* October 2023–December 2024

*Treasurer, Society of Hispanic Professional Engineers (SHPE)*

April 2022–May 2024