

# Charles E. Phillips

## Contact Info:

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## Links:

[Github://Spacenin](https://github.com/Spacenin)

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## Summary:

Studying at Clemson University, pursuing a Master's of Science in Computer Science to go into the field of software engineering in embedded systems.

## Education:

- Master of Science in Computer Science: *Clemson University* (Aug 2024-May 2025)
  - Obtaining a Master of Science in Computer Science from Clemson University, expected graduation date May 2025. **GPA: 4.0**
- Bachelor of Science in Computer Science: *Clemson University* (Aug 2020-May 2024)
  - Obtained a Bachelor of Science in Computer Science and Minor in Geology from Clemson University. **GPA: 3.86**

## Experience:

- Student Researcher: *Clemson University* (Aug 2022-Present)
  - Research alongside Dr. Jacob Sorber in the PERSIST Lab, specializing in embedded systems and battery-less devices, leading projects in VLC, and assisting in projects on security in wireless RF communication.
- Software Engineer Intern: *Avtec Inc.* (May 2024-Aug 2024)
  - Worked on dispatch radio drivers, implementing IP protocol QoS features into preexisting architecture, utilizing modern C++, Agile methodologies, and Windows provided development tools.
- Capstone Intern: *NIWC Atlantic* (Aug 2023-Dec 2023)
  - Developed an informational web-based dashboard interface and form portal for FIRST Robotics teams and their mentors, using a suite of AWS services as well as ReactJS.
- Technical Support Specialist: *Eleos Technologies* (May 2022-Sep 2022)
  - Tested the company's suite of apps and app bases with Firebase and TestRail.
- Undergraduate Teaching Assistant: *Clemson University* (Aug 2021-May 2022)
  - Assisted in teaching fundamental computer science skills to freshman students, including leading coding labs and debugging C assignments.

## Academic Projects:

- Random Number Generation from IoT: Achieving Secure Systems with Household Pets: *System Administration and Security Visualization* (Spring 2024)
  - Led an IoT security project utilizing the TI MSP430 MCU, radio communications, and Python scripting to seed random number generation with real-world pet accelerometer data.
- Pizzas-r-us: *Database Management Systems* (Spring 2024)
  - Designed and developed a MySQL database and Java program for managing pizzas, orders, and customers for a realistic pizza restaurant.
- The Ultimate Alarm Clock: *Embedded Systems Prototyping* (Spring 2024)
  - Created the hardware and software designs on a team for a light sensing alarm clock using the TI MSP430 MCU, Energia IDE, EagleCAD, and various electronic components.
- School Rules, Actually: *Data Visualization* (Fall 2022)
  - Collaborated on a data visualization site using D3.js to showcase and interact with data sets involving international school representation.

## **Personal Projects:**

- PlanPlay:
  - Created an application that automatically adds Planning Center set list to Spotify, using Python and the Planning Center and Spotify APIs. (Mar-Apr 2023)
- NumbersApp:
  - Built an application that sends daily texts to registered users, using MySQL, Python, and the Twilio API. (March 2023)
- Radio:
  - Utilized basic woodworking, Arduino, and electronic skills to create a radio from scratch. (May 2021-Sep 2021)

## **Voluntary Work and Activities:**

- Special Needs Volunteer:
    - Work with various special needs individuals across a range of ages in children's and adult's ministries as well as the 2024 Night To Shine event at Concord Baptist Church. (May 2023-Current)
  - Youth Small Group Leader:
    - Lead a group of high school aged students in various church settings at Concord Baptist Church. (Feb 2023-Current)
  - Church Youth Band Member:
    - Play music across guitar, bass, piano, and vocals in a band of fellow college students leading worship for the youth at Concord Baptist Church. (Feb 2021-Current)
  - Assistant Worship Leader:
    - Helped lead a congregation of church members in worship with guitar and vocals at Green Creek Baptist Church. (Jul 2018-Sep 2020)
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