

# Nathan Schaefer

563-880-7431 | [nathanschaefer14@gmail.com](mailto:nathanschaefer14@gmail.com) | [linkedin.com/in/nathan-schaefer](https://www.linkedin.com/in/nathan-schaefer) | [github.com/Nate-Schaefer](https://github.com/Nate-Schaefer)

## EDUCATION

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### University of Iowa

Iowa City, IA

*Honors B.S.E in Computer Science and Engineering*

*GPA 4.08*

- **Coursework:** Intro to AI & ML, Algorithms, Data Structures, Software Design, Communication Networks
- **Extracurriculars:** Association for Computing Machinery, Google Student Developer Club, Hyperloop

## TECHNICAL SKILLS

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**Languages:** C++, Java, Python, JavaScript, MATLAB, R, SQL

**Frameworks & Libraries:** Express, Pandas, NumPy, Node.js

**Other:** Jupyter Notebooks, Jira, Linux, Subversion, Git, HTML, CSS

## WORK EXPERIENCE

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### Software Engineer Intern

May 2023 – September 2023

*Collins Aerospace*

*Cedar Rapids, IA*

- Designed and developed a UDP-based network tool using socket programming with Java and C++, enabling efficient and reliable communication among distributed systems
- Coordinated with senior software engineers to enhance an internally used application using C++ to support a new file format and operate more efficiently
- Applied test-driven development methodologies to ensure the creation of robust and dependable code

### Teaching Assistant

January 2023 – Present

*University of Iowa*

*Iowa City, IA*

- Delivered a range of teaching activities, including tutorials toward learning C++ and Linux
- Participated in the assessment process using a variety of methods and techniques to offer practical, timely, and appropriate feedback to over 300 students
- Coordinated with professors to contribute to the development of new coursework

### STEM Innovator Research Intern

April 2022 – Present

*University of Iowa, Jacobson Institute*

*Iowa City, IA*

- Conducted data analysis of grant-supported work for the U.S. Department of Education
- Led data management strategies for human subjects research through validating data, updating records, and ensuring data security
- Utilized R for creating peer-reviewed conference presentations and research articles

### Software Development Intern

May 2022 – August 2022

*BioNeos*

*Coralville, IA*

- Developed an IoT Web Application using JavaScript on a team to monitor soil moisture levels in real time
- Created relational database for plants and moisture readings using SQLite
- Developed routes in an Express RESTful API to send and receive data from a microcontroller

## LEADERSHIP

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### Systems Team

Jan 2023 – Present

*UIowa Hyperloop*

- Contributed to development of C++ software for a pod to compete in the annual SpaceX Hyperloop Competition
- Collaborated with teammates in the assessment and testing of code
- Researched and implemented components that assisted in wireless control of the pod