



**Eli Newlin**  
Iowa State University  
Computer Science BS

📞 708-267-9122  
✉ elinewlin@gmail.com  
✉ newlin18@iastate.edu

## EDUCATION

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### •Iowa State University

2024

- Senior Year **Computer Science** Student (Graduating May 2025)
- Course work includes: *Data Structures, OOP Programming, Algorithms*
- Minor in **Cybersecurity**

## EXPERIENCE

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### •SoilSerdem

9/2023-Current

*Full Stack Developer Intern*

Ames, Iowa

- Taking an active role in development on an **NextJS** + **ExpressJS** web app that allows farmers to look at data in a new way
- **Worked with data scientists** to deploy analysis tools and provide access to users
- Brought project ahead of schedule by **3 Months**
- Grew into role **replacing external development team** and brought programming in-house
- Connect platform to **AWS S3** to store and retrieve user files
- Wrote efficient frontend/backend code to ensure **low-latency product**

### •Big Data In A Box Solutions LLC

11/2021-9/2023

*Intern*

Ames, Iowa

- Created an **SQL database using Azure Web Services** to store user information
- Constructed a functioning serverless **Rest API** using Azure Functions, **reducing** running costs by **700%**
- Integrated OpenAI functions and created a serverless backend with Azure to power an Angular frontend

## PERSONAL PROJECTS

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### •News++

06/2024-CUR

*A blog where I can write down thoughts about common development practices*

- Tools & technologies used: **Astro, CSS, JSX, Markdown**
- I am deeply interested in learning new languages and frameworks. Therefore, creating a project like this allowed me to experiment with Astro and determine differences between other frameworks I have used in the past

### •Raytracing Engine

08/25/2024 - CUR

*In progress creating a multi-threaded ray tracing engine for my Computer Graphics course*

- Tools & technologies used: **C++**
- Graphics software is of great interest to me, and currently in my Computer Graphics course we have been exploring ray-tracing
- This project include anti-aliasing, Spherical intersections, reflection/refraction, and more coming soon!
- In this project I also decided to multi-thread the application to reduce render time, causing an **81% decrease** in runtime

### •Poke327

01/24/2023 - 04/03/2023

*Created a ncurses Pokemon game with map generation, NPC's, and battle!*

- Tools & technologies used: **Curses, C++, C, CSV**
- This project was a part of my advanced programming techniques class. Our game was added to as the semester went on, while the semester ended before the game was finished. I implemented a battle system, npcs, and map generation.

## TECHNICAL SKILLS AND INTERESTS

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**Languages:** Python, Java, CSS/HTML, Javascript/Typescript, C/C++

**Developer Tools:** Postman, Azure, AWS, Git

**Frameworks:** ReactJS, Astro, NextJS, Flask

**Cloud/Databases:** Azure, AWS, Microsoft SQL, SQLite, MongoDB, MariaDB/MySQL

**Soft Skills:** Communication, Team Work, Leadership

**Coursework:** Data Structures, Algorithms, low-level programs

**Areas of Interest:** Web apps, Open Source, Linux