Eli Newlin

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Computer Science BS

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EDUCATION

- **Iowa State University** *2024*
  - *Senior Year **Computer Science** Student (Graduating May 2025)* *GPA: 3.3*
  - *Course work includes: Data Structures, OOP Progamming, Algorithms*
  - *Minor in **Cybersecurity***

EXPERIENCE

- **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

- **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

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