Eli Newlin

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Computer Science BS

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EDUCATION

•**Iowa State University** *08/2021 - CUR*

-*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 - CUR*

Full Stack Developer Intern Ames, Iowa
– Spearheaded development on an **NextJS + ExpressJS** web app that allows farmers to look at data in a new way
– **Liaised team of 4 data scientists** to deploy analysis tools and provide access to users
– Spearheaded **accelerating** project from 3 months behind to on schedule
– Grew into role **replacing external development team** and brought programming in-house, increasing development efficiency by **80%**
– Connected platform to **AWS S3** to store and retrieve user files
– Wrote efficient Frontend and Backend code to ensure **low-latency product** bringing data from database to client

•**Big Data In A Box Solutions LLC** *11/2021 - 9/2023*

Intern Ames, Iowa
– Designed 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 developed a serverless backend with Azure to power an Angular Frontend
– **Collaborated** with team of 3 Developers to connect Angular Frontend to Azure Powered Backend

PERSONAL PROJECTS

•**Raytracing Engine** *08/2024 - CUR*

In progress creating a multi-threaded ray tracing engine for computer graphic ppm generation

*Tools & technologies in project: **C++, Make, git***

– Implemented **anti-aliasing** via random pixel sampling to provide accurate color blending between objects
– Calculated **reflection and refraction** via vector math and different simulated materials
– Multi-threaded the application to reduce render time, causing an **81% decrease** in runtime

•**News++** *06/2024 - CUR*

Expanded upon current knowledge by trying new framework to create blog site

*Tools & technologies in project: **Astro, CSS, JSX, Markdown, git***

– Collaborated with partner to **coordinate progress** and reduce development time resulting in a 3 day production time
– Constructed article database via **AstroJS collections** to display data for readers

•**Poke327** *01/2023 - 04/2023*

Developed a Curses Pokemon game with map generation, NPC's, and battle

*Tools & technologies in project: **Curses, C++, C, CSV, Make, git***

– Leveraged **C++ pointers, vectors, and g++ compiler, git** to create a Pokemon-like terminal game
– Implemented **Curses library** to generate Maps and Battle Interface with color for player in-game

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