BRYCE MICHAEL HILL 812-603-7929 bryh311@gmail.com bryce-hill09

Education

Purdue University, West Lafayette IN

August 2022 – December 2025

Bachelor of Science Computer Science

GPA: 3.97/4

Concentrations: Programming Languages, Systems Programming

Coursework: Analysis of Algorithms, Data Structures, Systems Programming, Computer Architecture, Object Oriented

Programming, Linear Algebra, Calculus I-III, Discrete Mathematics

Honors: Dean's List and Semester Honors

Experience

Cleveland-Cliffs May 2024 – August 2024

Process Control Engineering Intern

Burns Harbor, IN

- Developed software utilizing C#, SQL Server and ASP.NET Core
- Built system tracking software to inventory over 1,500 systems, allowing engineers to track storage and memory usage, network connections, and patch compliance
- Piloted Verve cybersecurity software on 250 manufacturing assets to track vulnerabilities and deploy patches

Purdue University

August 2023 – May 2024

Undergraduate Teaching Assistant for C Programming and Discrete Math

West Lafayette, IN

- Facilitated labs and office hours for a class with over 800 students
- Proofread homework assignments before being given to students
- Graded student homework assignments and exams

Projects

UNIX Shell | Lex/Yacc, C++

March - April 2024

- Developed clone of csh
- Designed shell grammar and implemented it using Lex/Yacc
- Included pipes, file redirection, subshells, and control flow

Expressit (Reddit Clone) | JavaScript, React, ExpressJS, SQLite

June – August 2023

- Developed back-end REST API utilizing ExpressJS framework and SQLite
- Strengthened database design skills using SQL
- Developed front-end utilizing React components and Bootstrap CSS
- Strengthened JavaScript concurrency skills by utilizing Axios HTTP client

Dog vs Cat Classification Neural Network | Python, Jupyter Notebooks, TensorFlow, Keras

August 2023

- Developed a CNN to classify given images from a data set of images from FreeCodeCamp and achieved an accuracy of 70%
- Used image manipulation techniques such as rotation and flip to increase the size of the data set to prevent over-fitting

Chip-8 Emulator $\mid C\#$, .NET

May 2023

- Translated opcodes and handled keyboard input and video output to gain experience with basic emulator development
- Processed data from raw big-endian binary files
- Utilized Winforms UI for graphics

Technical Skills

Languages: C/C++, SQL, C#, Java, JavaScript, HTML, CSS, Python, Assembly, Ruby

Frameworks & Libraries: ASP.NET Core, SQL Server, ExpressJS, React, SQLite, Bootstrap, TensorFlow Software & Tools: GCC, Unix, Vim, Git, Github, Valgrind, GDB, VSCode, IntelliJ, Excel, Grafana

Certifications

Certificate 1: TestOut PC Pro

Certificate 2: FreeCodeCamp Machine Learning with Python