# Bryce Michael Hill

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## Education

**Purdue University, West Lafayette IN** **August 2022 – December 2025**

*Bachelor of Science Computer Science* *GPA: 3.97/4*

**Concentrations:** Programming Languages, Theory

**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 – Present**

*Process Control Engineering Intern* *Burns Harbor, IN*

- Developed software utilizing C#, SQL Server and ASP.NET Core
- Built system tracking software to inventory over 4,000 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** | *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