

# BRYCE MICHAEL HILL

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## Education

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### 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, Operating Systems, Networking, Software Testing, Systems Programming, Computer Architecture, Object Oriented Programming, Linear Algebra, Calculus I-III, Discrete Mathematics, Statistics

**Honors:** Dean's List and Semester Honors

## Experience

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### Cleveland-Cliffs

May 2024 – August 2024

*Process Control Engineering Intern*

*Burns Harbor, IN*

- Developed software utilizing C#, Python, SQL Server, Bootstrap CSS, Grafana, and ASP.NET Core
- Built system tracking software to inventory over 4,000 assets, allowing engineers to track storage and memory usage, network connections, patch compliance, and changes to active directory
- Piloted Verve cybersecurity software on 250 manufacturing assets to track vulnerabilities, deploy patches, and create dashboards

### 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

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### 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

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**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

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**Certificate 1:** TestOut PC Pro

**Certificate 2 :** FreeCodeCamp Machine Learning with Python