Tayden White

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EDUCATION

Purdue University | West Lafayette, IN   **Aug 2023 - May 2027**

Dual Degrees in Computer Science & Mathematical Economics

   GPA: 3.9 – Dean's List & Semester Honors (3x)

   Relevant Coursework: Data Structure & Algorithms, Data Mining & Machine Learning, Systems Programming

EXPERIENCE

Johnson & Johnson – Innovative Medicine | Raritan, NJ

Software Engineer   **Aug 2025 – Present**

- Optimizing static site build/deployment with Hugo, Jenkins and AWS. Enhancing CI/CD pipeline to support feeding up to one million documents into GenAI, allowing the large scale presentation of and modeling with FDA records

Undergraduate Research Assistant | West Lafayette, IN

Research Undergraduate for Purdue University   **May 2025 – Aug 2025**

- Performed an analysis on an algorithm for the fusion of permutation defects, a type of quasi-particle whose interactions can be harnessed in implementing qubits for topological quantum computing.
- Undertook extensive case work and calculations describing the "fusion rules" for permutation defects, helped identify and find solutions for various edge cases in the algorithm with the goal of eventually rewriting the paper
- Presented my research at **Purdue's Summer Undergraduate Research Exposition**

Johnson & Johnson – Innovative Medicine | Raritan, NJ

Software Engineering Intern   **May 2024 – Aug 2024**

- Assisted in the optimization and refactoring of GAMEs (Generic Analytics Modeling Engine), an internal "generic" machine learning engine. Decreased the size of the R package **by 25%**, made the code base more modular
- Developed an automation script in Python to generate web forms for JnJ's clients to evaluate the respective services they are using, saving hundreds of hours of manual configuring.
- Built and deployed websites using Hugo & GitHub Pages. Created tutorials and trained others in building sites

PROJECTS

Rubik's Cube X Listener with Sentiment Analysis | *React.js , Native.js, X API, Socket.io, Naive Bayes*

- Built a listener that uses the X API to scrape for, and notify me about tweets related to a new Rubik's Cube release
- Implemented a small scale supervised Naive-Bayes machine learning model to facilitate sentiment analysis on the tweets, letting me determine the general consensus on a new release.

The Future of AI at Purdue | *Python, Research, Data Analytics*

- Conducted a social study on the sentiment of Purdue leaders on the classroom use of AI. Compared these opinions with other Universities to see where Purdue lies, using Python to visualize the disparity in opinions.
- Wrote a comprehensive research paper displaying my findings, with extensive thinking on how AI may develop in the classroom and how we can be best prepared for it.
- Presented my findings at **Purdue's Fall Undergraduate Research Exposition** to professors and students.

Writing a Shell | *Lex (lexical analyzer), Yacc (parser generator), C/C++*

- Utilized Lex and Yacc to tokenize, and then parse command line inputs. Utilized C/C++ functions to implement a working shell, including process forking, executable calling, IO redirection with pipes and file descriptors
- Implemented command execution, file redirection, signal handling, subshells, wildcard and tilde expansions, etc. with nearly full shell functionality.

TECHNICAL SKILLS

Languages: C/C++, HTML, Java, MatLab, Python, R, Swift, SQL, x86-64 Assembly

Technologies: Django, Flask, Firebase, Git, PostgreSQL, React, Terminal, Visual Studio Code, Xcode

Personal: Critical Thinking, Adaptation, Teamwork, Communication & Presentation