

# Tayden White

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## EDUCATION

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**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

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**Johnson & Johnson – Innovative Medicine** | Raritan, NJ

*Software Engineer*

**Aug 2025 – Present**

- Optimizing an FDA compliance analytics pipeline to support more than 60k records in HUGO static sites, designing an AI Agent Workflow that dynamically generates SQL prompts for parallel delta tables to answer user queries

**Undergraduate Research Assistant** | West Lafayette, IN

*Research Undergraduate for Purdue University*

**May 2025 – Aug 2025**

- Analyzed an algorithm for topological quantum computing that describes the fusion of “permutation defects,” a type of quasiparticle whose interactions can be harnessed in implementing qubits
- Diagnosed and resolved critical edge cases through extensive casework and calculations, contributing a revised set of “fusion rules” for these particles, to be implemented in a future publication
- Presented my research at **Purdue’s Summer Undergraduate Research Exposition**

**Johnson & Johnson – Innovative Medicine** | Raritan, NJ

*Software Engineering Intern*

**May 2024 – Aug 2024**

- Reduced the size of an internal “generic” Machine Learning R package (GAMEs) by over 300 lines in a strategic refactoring designed to make the code base more modular
- Developed an automation script in Python to generate web forms for JnJ’s clients to evaluate their respective services, saving hundreds of hours of manual configuring
- Spearheaded an initiative for co-ops to build and deploy static sites using HUGO & GitHub Pages, producing tutorial/training documentation for 20+ coworkers to follow

## PROJECTS

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**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

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**Languages:** C/C++, Java, JavaScript, MATLAB, Python, R, Swift, SQL (PostgreSQL), x86-64 Assembly, HTML

**Frameworks:** Django, React Native, TensorFlow, Node.js, Pandas, NumPy, PyTorch

**Developer Tools:** Git, Firebase, Docker, Xcode, AWS, Databricks, AMP agents (Sourcegraph)