Derrick Lin

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EDUCATION

Rensselaer Polytechnic Institute — Troy, NY
Bachelor of Science in Computer Science and Mathematics — *Aug. 2022 – May 2026*
- GPA: 3.5
- Coursework: Database Systems, Data Structures and Algorithms, Linear Algebra, Computer Organization, Principles of Software, Numerical Computing, Operating Systems
- Awards: Dean's Honors List

EXPERIENCE

Software Developer — January 2024 - May 2024
Rensselaer Center for Open Source — *Troy, NY*
- Utilized React, Node, and Tailwind CSS resolve bugs and feature requests of open-source web applications
- Contributed clear and concise guides and API documentation, facilitating easier onboarding for new contributors

Academic Tutor — September 2023 – December 2023
Rensselaer Polytechnic Institute — *Troy, NY*
- Facilitated one-on-one and group tutoring for 20+ students on topics of data structures and algorithms, recursion, dynamic programming, and differential equations
- Designed structured exam review sessions, creating targeted practice problems and study guides, helping students achieve an average 11% improvement between midterm and final exams

Pharmacy Technician — May 2023 – August 2023
Care First Drugs — *Elmhurst, NY*
- Managed inventory of over 200 products, conducting weekly audits and restocking medications, leading to 35% decrease in out-of-stock incidents
- Processed and filled over 200 prescriptions daily with a 99% accuracy rate, promoting workflow efficiency and reducing patient wait times

PROJECTS

Smart Read | *Python, React*
- Created a web scraping application with a FastAPI backend, leveraging Selenium and BeautifulSoup to parse data from major news outlets, financial sites, and user-provided links
- Integrated the Ollama AI for prompt-based interactions, enhancing user experience with context-aware responses

Chessalyze | *Next.js, Prisma, PostgreSQL, Vercel*
- Developed a web application simulating Chess.com's Game Review, offering a free alternative to paywalled features
- Sped up game analysis time by 12% through integrating Stockfish REST API and provided features of overall move accuracy, estimated level, and continuing positions against the engine
- Implemented user authentication and management features using JSON Web Tokens (JWTs) and a database to allow users to store and retrieve analyzed games

Proof Press | *MongoDB, Express.js, React, Node.js*
- Built a Web3 application with authentication via MetaMask, intended for users to create and interact with posts

Crossword Gen | *C++*
- Devised a recursive backtracking algorithm to generate all valid board with constraints of board dimensions and include / exclude words
- Designed a graphical user interface (GUI) using wxWidgets, ensuring cross-platform compatabliity

TECHNICAL SKILLS

Languages: Java, Python, C / C++, JavaScript, TypeScript, HTML / CSS, R, MATLAB, LaTeX
Developer Tools: Git, PyTorch, NumPy, React, NextJS, Tailwind CSS, MongoDB, PostgreSQL, FastAPI
Concepts: Software Engineering, Back-end, Front-end, Web Development, REST APIs