

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: Linear Algebra, Data Structures and Algorithms, Discrete Mathematics, Computer Organization, Principles of Software, Statistical Methods, Econometrics, Numerical Computing, Operating Systems

EXPERIENCE

Academic Tutor

September 2023 – December 2023

Rensselaer Polytechnic Institute

Troy, NY

- Tutored over 30 students in data structures and algorithms, calculus, and differential equations
- Assisted in implementing linked lists and hash maps, leading to an 11% increase in homework averages
- Led to an average 7% grade improvement among tutored students between the midterm and final exams

Pharmacy Technician

May 2023 – August 2023

Care First Drugs

Elmhurst, NY

- Monitored stock levels, developed an efficient ordering system that contributed to a 13% decrease in backorders
- Implemented patient reminder system for medication, decreasing return to stock incidents by 16%
- Facilitated training for new staff on pharmacy procedures, improving team efficiency and customer satisfaction

PROJECTS

Chessalyze | *Next.js, Prisma, PostgreSQL, Vercel*

August 2024 – Present

- Developed a full-stack chess web application enabling users to analyze and review their Chess.com games, offering a free alternative to paywalled content
- Implemented interactive chessboard components for dynamic game visualization and move analysis
- Utilized Stockfish API to deliver in-depth analysis and allowed users to continue positions against the engine
- Integrated PostgreSQL for user management and retrieval of previously analyzed games

ProofPress | *MongoDB, Express.js, React, Node.js*

September 2023 – December 2023

- Created a platform for users to create, share, and interact with other users through sharing content
- Utilized MongoDB for data storage, implementing RESTful APIs to handle HTTP requests for CRUD operations
- Integrated MetaMask for decentralized user authentication, enhancing privacy and security

Crossword Generator | *C++ (wxWidgets)*

March 2023 – April 2023

- Implemented a recursive backtracking algorithm to generate all valid board solutions, aligning with constraints of board dimensions and include / exclude words
- Built a responsive GUI with wxWidgets for cross-platform compatibility
- Ranked in the top 10% for algorithm efficiency in a course-wide contest, outperforming over 350 students

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (PostgreSQL), JavaScript, TypeScript, HTML/CSS, R, MATLAB, LaTeX

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, PyTorch, NumPy