

# 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

### Software Developer

January 2024 - May 2024

*Rensselaer Center for Open Source*

*Troy, NY*

- Collaborated with teams of developers to 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*

- 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

### Proof Press | *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 Gen | *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