

# Derrick Lin

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## EDUCATION

### Rensselaer Polytechnic Institute

Troy, NY

*Bachelor of Science in Computer Science, Bachelor of Science in Mathematics*

*Aug. 2022 – May 2026*

- GPA: 3.5
- Coursework: Data Structures and Algorithms, Operating Systems, Statistical Methods, Software Engineering, Numerical Computing, Computational Optimization, Cloud Computing, Database Systems
- Awards: Rensselaer Leadership Award, Dean's Honors List (top 10% of class)

## EXPERIENCE

### Software Developer

January 2024 - May 2024

*Rensselaer Center for Open Source*

*Troy, NY*

- Collaborated with team of 6 on FinVis, an investment tracker, using Agile methodologies to deliver weekly sprints
- Leveraged tRPC to build type-safe API endpoints for seamless MongoDB interaction, reducing runtime errors
- Addressed 10+ feature requests with React, creating a Settings page and enhancing overall layout responsiveness
- Resolved 5+ bug reports on navigation and form validation, leading to a more intuitive and error-free interface

### Computer Science ALAC Tutor

September 2023 – December 2023

*Rensselaer Polytechnic Institute*

*Troy, NY*

- Tutored 50+ students in CSCI-1200 Data Structures, increasing exam scores by 20% between midterms and finals
- Diagnosed semantic errors in students' code by designing 40+ test cases, improving homework grades by 15%

### Pharmacy Technician

May 2023 – August 2023

*Care First Drugs*

*Elmhurst, NY*

- Processed and dispensed 300+ prescriptions daily through PrimeRX, contributing \$20,000+ in weekly revenue
- Managed an inventory of 600+ items, conducting weekly audits that reduced stockouts by 45%

## PROJECTS

### Plutus | *Python, Docker, AWS*

- Built a Discord bot to scrape the latest job listings and tech events, serving 50+ users across 2 servers
- Utilized Selenium to extract data from JavaScript-driven websites and BeautifulSoup for efficient HTML parsing
- Containerized the application with Docker and deployed it on an AWS EC2 instance, ensuring 99.9% uptime
- Configured a CI/CD pipeline with GitHub Actions to automate version control, reducing deployment time by 50%

### Chessalyze | *Next.js, React.js, TypeScript, Tailwind CSS, PostgreSQL, Vercel*

- Developed a web application replicating Chess.com's Game Review, saving users \$100 in subscriptions annually
- Fetched 500+ games via Chess.com API and analyzed move-by-move using Stockfish REST API
- Implemented Google Sign-In with NextAuth, streamlining authentication for 30+ users
- Enabled access to 150+ saved analyses stored in PostgreSQL with Prisma ORM for efficient data management
- Leveraged Vercel's serverless infrastructure to achieve near-instant rollouts, optimizing deployment workflow

### Campus Pathfinder | *Java*

- Engineered a graph-based application using Dijkstra's algorithm to compute shortest paths between RPI buildings
- Built an interactive JavaFX GUI to visualize routes and building locations on a campus map

## TECHNICAL SKILLS

**Languages:** Python, C, C++, Java, JavaScript, HTML, CSS, TypeScript, MATLAB

**Frameworks and Libraries:** React.js, Node.js, Express.js, Next.js, Tailwind CSS, Flask, FastAPI

**Technologies:** MySQL, PostgreSQL, MongoDB, Git, Docker, Amazon Web Services (AWS), Linux

**Concepts:** Software Engineering, Backend, Frontend, Full-Stack, Web Development, Object Oriented Programming