Dylan Zhou

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EDUCATION

Rensselaer Polytechnic Institute — Troy, NY
Bachelor of Science in Computer Science, Minor in Philosophy — *Aug. 2022 – May 2026*

- Relevant Coursework: Data Structures in C++, Computer Organization, Introduction to Algorithms, Operating Systems, Application Design Using Java, Cloud Computing, Database Systems, Programming Languages, Network Security And Defense
- Named to Dean's Honor List for 4 semesters

EXPERIENCE

SearchRPI — Jan 2025 – May 2025
Open Source Contributor

- Implemented the **PageRank algorithm in C++**, with results within ±0.05 of expected values on sample datasets
- Designed and developed the initial website, establishing the foundation for future features and usability

Shuttle Tracker — October 2023 – May 2024
Open Source Contributor

- Designed and implemented a distance tracker for shuttle routes using GPX coordinate points
- Implemented an **ETA algorithm** in **Swift** for the school shuttles across 2 routes and 15 stops
- Refactored API endpoints to separate current and past schedules by creating dedicated data models
- Mapped each stop to its corresponding route based on proximity to route coordinates

RPI Center for Career and Professional Development — Jan 2023 – Present
Student Worker — *Troy, NY*

- Guided over 10 students weekly in using Handshake and addressing frequently asked questions
- Managed incoming phone calls from employers and parents, directing them to the appropriate staff member
- Assisted career counselors with errands and preparation of printed student resources, including cutting and organizing handouts and posters

PROJECTS

EatYum | *React.js, Next.js, TailwindCSS, Auth.js, PostgreSQL*

- Built a full-stack meal planning app featuring **300+ recipes** sourced from a public database, with functionality for users to search, save recipes, and create custom meals
- Implemented secure user authentication with **email/password login** and session management using PostgreSQL
- Improved user experience with an intuitive interface for browsing, saving, and scheduling recipes
- Integrated interactive calendar functionality to track and plan meals across the week

StudyIt | *React.js, Next.js, TailwindCSS, Google Cloud Platform API, MongoDB*

- Developed a multi-page study companion app with **task management, Pomodoro timer, and real-time dashboard**
- Integrated **YouTube Data API** for music playback and **Google Search API** for instant academic searches
- Created a rank/progress system rewarding users after completing tasks or study sessions
- Built a fully interactive to-do list and calendar system supporting deadlines, task alerts, and persistent storage

Notts | *React.js, Electron.js, TailwindCSS, MongoDB*

- Designed a markdown-based note-taking desktop app with folder management, enabling users to organize and access notes efficiently
- Built a **REST API with full CRUD operations**, handling folder/note creation, editing, and deletion using MongoDB

TECHNICAL SKILLS

Programming Languages: C, C++, Java, JavaScript, TypeScript, PostgreSQL, MongoDB, Python
Frameworks: React.js, Drizzle ORM, TailwindCSS, Auth.js, Node.js, JUnit, JavaFX, Express.js, Mongoose
Developer Tools: Git, GitHub, Docker