David Wang

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Education

Rensselaer Polytechnic Institute (RPI) <div style="float:right">Expected May 2026</div>
B.S. Computer Science & B.S. Information Technology Web Science (GPA: 3.76 / 4.00) <div style="float:right">Troy, NY</div>
- **Relevant Coursework:** Data Mining, Programming Languages, Object Oriented Programming, Data Structures and Algorithms, Computer Architecture, Discrete Math, Web Science Development, Web Systems Development
- **Activities:** Upsilon Pi Epsilon, Gamma Nu Eta, Society of Asian Scientists and Engineers, Badminton Club

Experience

84.51° (Kroger Subsidiary) – *Incoming Software Engineer Intern* <div style="float:right">Jan 2025 – May 2025</div>
- Incoming Software Engineering Intern for Spring 2025

Harp Research – *Software Engineer Intern* <div style="float:right">May 2024 – Aug 2024</div>
- Developed a user creation flow utilizing Microsoft login by creating an OAuth flow that retrieves user information from Graph API and enables Outlook email CRUD functionality through creating a grant utilizing Nylas API.
- Deployed a dockerized instance of a PostgreSQL and Redis cache server to reduce latency between Prisma ORM queries by **78%** in order to have easier access of information that would otherwise need multiple different APIs.
- Reduced data processing time by **25%** on datastreaming dashboard by optimizing data visualizations using Plotly.js.

Network Science and Technology (NEST) Center – *Undergraduate Research Assistant* <div style="float:right">Jan 2024 – May 2024</div>
- Improved runtime of experimental algorithm on large datasets by **32%** by parallelizing computation processes.
- Implemented **community detection** and **hierarchical clustering** methods onto datasets of over 20,000 tweets.
- Utilized matplotlib, networkx, scikitlearn Python modules for **network clustering** and **community analysis**.

Rensselaer Polytechnic Institute – *Undergraduate Teaching Assistant* <div style="float:right">Jan 2024 – May 2024</div>
- Grade homework, quizzes, and tests for Foundations of Computer Science (CSCI 2200) for over **100+** students.
- Work with course staff to ensure students grasp course material and assignments and hosted office hours.

Rensselaer Center for Open Source – *3x Open Source Developer*
Tutorfi – Full Stack Developer ⌨ <div style="float:right">Jan 2024 – May 2024</div>
- Implemented a file server using Golang and PostgreSQL, utilizing Golang's os package to obtain file CRUD functionality, achieving less than **50ms** file upload and retrieval speeds by taking advantage of Go's execution times.
- Leveraged Docker to containerize app, facilitating a **40%** reduction in deployment times and improving scalability.
Data Connosieur – Software Engineer ⌨ <div style="float:right">Aug 2023 – Dec 2023</div>
- **Team lead of 8** of a software package to support in-class instructions of data science and machine learning methods.
- Developed the **Linear Classification** method with **83%** accuracy through model training with datasets using C++.

Projects

⌨ **Boba Bliss** | *React Native, Typescript, Flask, MongoDB*
- Won **1st place** for the BobaTalks Hackathon through creating a Boba Dating app to match Boba lovers with a Boba.
- Implemented endpoints using Flask for viewing and creating boba matches to allow for a recommendation system.

⌨ **RPI Campus Map** | *Java, JUnit, JavaFX, SOLID Principles, MVC Design*
- Created a dynamic campus map application that displayed the shortest path between buildings using Dijkstra's algorithm, ensuring paths traveled from 2 points with the lowest weight and were drawn along valid roads.
- Designed and Implemented ADTs for Graph, Edge, and Node, creating and writing specification for each function.
- Utilized black-box and white-box testing heuristics to create JUnit tests resulting in over **96%** statement coverage

⌨ **Budget Buddy** | *Next.js, React, Express.js, MongoDB, Typescript, Javascript, Firebase, Microsoft Azure, git*
- Collaborated in a team of 5 to implement a budget tracking application targeted at clubs and organizations.
- Implemented backend API endpoints using Express, connecting MongoDB and Firebase for user authentication.

Technical Skills

Languages: Python, Java, C, C++, HTML/CSS, JavaScript, TypeScript, Golang, PHP, Bash, Makefile
Frameworks: Next.js, React, React Native, Vue.js, Express.js, Flask, jQuery, Node.js, Tailwind, Bootstrap, D3.js, JUnit
Tools: Git, Docker, Microsoft Azure, AWS, SQL, MySQL, PostgreSQL, MongoDB, Regex, Verilog, phpMyAdmin
Concepts: Web Frameworks, Frontend, Backend, Fullstack, Cloud Computing, Agile Development, Software Engineering, Machine Learning, Data Structures and Algorithms, Data Science, Data Analysis, Systems, DevOps, Version Control, Human Computer Interaction, Data Science, Data Analysis, Data Visualization, Databases, Microservices, REST API