

Philip Park

516-427-6240 | philippark271@gmail.com | linkedin.com/in/philipdpark | github.com/philippark

EDUCATION

Rensselaer Polytechnic Institute

Troy, NY

Bachelor of Science in Computer Science

Expected Graduation: May 2026

- GPA: 3.66/4.0, 4x Dean's Honors List, Upsilon Pi Epsilon (CS Honor Society), ICPC Regionals 2024 Contestant
- Relevant Coursework: Operating Systems, Artificial Intelligence, Cloud Computing, Algorithms, Discrete Math, Computer Organization, Linear Algebra, Data Structures

EXPERIENCE

Google

Sunnyvale, CA

Software Engineer Intern

May 2025 - August 2025

- Improved system scalability and reduced memory overhead by designing and implementing a **C++ distributed messaging queue** to manage scheduled data updates **impacting over 20 Alphabet teams**
- Extended a production **C++ parallel data pipeline** to enqueue event-driven data updates and built a queue receiver to parse and apply changes into a relational SQL database
- Implemented cross-system RPC integration by developing a **C++ RPC** to query scheduled updates and a **Java RPC** to expose this data, enabling seamless communication between backend services
- Enhanced UX for operational teams by building a full-stack **real-time dashboard (Dart frontend + backend services)** to visualize upcoming data changes, improving accessibility and monitoring for stakeholders

GP Enterprise Solutions

Latham, NY

Software Engineer Intern

Sep 2024 - Dec 2024

- Automated client-specific financial document generation by building a **Flask tool with Python and Pandas**, cutting a weeks-long manual process to seconds and saving dozens of hours of repetitive work
- Refactored the backend of an invoicing system (1,000+ invoices/month), reducing code complexity by 50% and improving billing accuracy, preventing costly errors; used **JavaScript, SQL, and Snowflake**
- Developed a **full-stack client-facing web page** with a tRPC backend and **TypeScript** frontend to track document downloads, giving high-privilege users visibility into access history for compliance and security

Rensselaer Polytechnic Institute

Troy, NY

Computer Science Tutor

Sep 2023 - Dec 2023

- Tutored 50+ undergraduate students in Computer Science 1 and Data Structures, delivering 64+ hours in assisting with **Python** and **C++** assignments, programming fundamentals, debugging, and algorithmic problem-solving

PROJECTS

SearchRPI - Open Source | C++

- Engineered the backend of a campus-wide search engine for fast access to RPI relevant documents
- Implemented **BM25** and **TF-IDF** ranking algorithms to score document relevance, improving query result quality
- Built a **RESTful API** to process search queries and return ranked results from a **LMDB**-backed datastore

Multithreaded Wordle TCP Server | C

- Implemented a multi-threaded TCP server in C to play Wordle. Supported concurrent client connections using POSIX threads, handled synchronization and resource sharing using mutexes and condition variables.

LEADERSHIP & EXTRACURRICULARS

President of RPI Chess Club & Chess.com College Ambassador

April 2024 - Present

- Expanded club membership from 5 to 50+ by organizing campus-wide events, monthly tournaments, and intercollegiate competitions; founded RPI's first official **Chess.com** club
- Built a Discord bot for a 450-member server to reduce player profile lookup time and automate puzzle posts

TECHNICAL SKILLS

Languages: C++, C, Python, Java, JavaScript, TypeScript, SQL

Technologies: Git, Linux, Bash, RPC, React, Node.js, PostgreSQL, MySQL, Flask, Pandas

Domains: Backend Development, Systems, Infrastructure, Distributed Systems, Networking