Yusuf Elsharawy

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OBJECTIVE

Experienced and detail-oriented programmer seeking software development co-op position to invent solutions using extensive skills in software design, collaboration, and communication. Particularly interested in opportunities in low-level, backend, or full-stack development. Available Spring or Fall 2026.

EXPERIENCE

Software Engineering Co-op
Codonics – Linux, Spring Boot, Grails, Bash, HTML, JS, CSS   January 2025 – August 2025
- Improved web UI significantly, engaging in discussions and proposing alternatives, with a high focus on user experience.
- Dramatically increased stability of SLS network connectivity through meticulous research and testing.

Online Computer Science Tutor
Tutor.com   August 2023 – January 2025
- Scheduled 7 hours a week, during which students can request sessions, to uphold a quota in a remote position.
- Received consistently positive feedback from college and adult students across 5 colleges and 4 programming languages.

Supplemental Instruction Leader
Rochester Institute of Technology   January 2023 – May 2024
- Planned and lead weekly collaborative study sessions, promoting active participation and group cohesion among students.
- Communicated low-level computer science concepts and the inner workings of C using visual aids and interactive demos.

PROJECTS

Videogame Database Application Backend
Java Spring Boot, JDBC, Git, MVVM, PostgreSQL, Database Design   January 2024 – May 2024
- Conducted domain analysis to create a robust Entity Relationship model, yielding a relational database of 15 normalized tables.
- Implemented secure REST API endpoints via prepared SQL queries and mapping results to Java objects serialized to JSON.
- Simplified codebase by abstracting controllers and DAOs, reducing over 3,000 lines of code while enhancing functionality.

PC Builder Website
Java Spring Boot, Node.js, AngularJS, RxJS, TypeScript, Git, MVVM   January 2023 – May 2023
- Implemented token-based authentication and role-based access control, resulting in an easily extensible and secure REST API.
- Maintained proper usage of SOLID object-oriented principles, unit testing, and version control across over 350 commits.
- Coordinated a group of 5 students to follow agile development using Scrum over the course of 4 months.

Club Penguin 3D
Unity, C#, Visual Studio   March 2017 – November 2020
- Collaborated remotely with a small team to recreate the childhood MMO game Club Penguin using Unity and C#.
- Refactored project to enhance runtime performance and developer usability, while creating tools to streamline development.
- Prioritized user experience and maintainability when engaging in team discussions over key design decisions.
- Delivered seasonal game updates and regular bugfixes to an audience of over 45,000 users over the course of 3 years.

SKILLS

Languages
C/C++, Python, Java, Groovy, SQL, C#, .NET, Bash, HTML, CSS, JavaScript / TypeScript, Haskell, Nim, Zig

Tools
Git, Node.js, Amazon Web Services, Microsoft Azure, Google Cloud, Docker Containers, Valgrind + GDB, MongoDB, Visual Studio

Technical Skills
Linux System Administration, Cloud Architecture, Distributed Systems, Automation, Data Structures, Algorithms

EDUCATION

Rochester Institute of Technology   GPA: 3.87/4.00
Bachelor of Science, Computer Science   August 2022 – December 2026 (Expected)

AWARDS & CERTIFICATIONS

- **Amazon Web Services**   Certified Cloud Practitioner   July 2023
- **Microsoft**   Azure Fundamentals   July 2023
- **Putnam Competition**   Score: 20   December 2023
- **BrickHack 9**   Best Use of AI to Elevate   February 2023
- **RIT**   Dean's List   2022 – 2024
- **Stuyvesant High School**   Highest Honors in CS   June 2022