Timothy Liakh

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EDUCATION

Rensselaer Polytechnic Institute - *Bachelor of Science*   **Troy, NY**
Dual Major in Computer Science and Information Technology   May 2026
- GPA: 3.79
- 1st Place Winner, NSBE-SHPE Hackathon, Spring 2024
- Minor: Cognitive Science of Artificial Intelligence

SKILLS & LANGUAGES

Programming Languages: C#, Python, JavaScript, TypeScript, C++, C, Java, PHP, HTML, R, Bash, CMake, Verilog
Technologies & Libraries: ASP.NET, Blazor, Razor, React, NodeJS, Express.js, Selenium, PyTorch, Azure DevOps, Docker, Jira,
Databases & Tools: SQL, MongoDB, Firebase, GitHub, Git, Linux, Postman, Visual Studio, Coder, JSON
Fluent Languages: English and Russian

WORK EXPERIENCE

WebstaurantStore   **May 2024 - August 2024**
Junior Software Engineer - *C#, Blazor, SQL, Agile Development (Scrum)*
- Developed a new ASP.NET service in C# to intercept and suppress redundant alerts, reducing operational costs by 90% and eliminating over 50,000 weekly Sentry alerts, resulting in substantial savings under the pay-per-alert model.
- Created an optimized SQL procedure to retrieve 1,000,000+ customer shipping reports with integrated filtering, reducing load times by 5%, integrating with a dynamic frontend using Blazor and Kendo UI for enhanced data visualization.
- Modified MediatR API endpoints to incorporate filtering during SQL data retrieval, resulting in a 10% reduction in load times and doubling publicly accessible warehouse data.

Grid Protection Alliance   **May 2023 - May 2024**
Software Engineering Intern - C#, .NET, *React, TypeScript, SQL*
- Spearheaded a new Grafana data source plugin using React and TypeScript to simultaneously process over 750,000 phasor data points and created 30+ custom functions for advanced analysis and faulty phasor detection.
- Engineered a backend in C# with .NET RESTful API calls to retrieve data from multiple SQL tables, enabling on-retrieval function modification and reducing data analysis wait times by 15%.
- Worked part-time during school to fix bugs and manage issues using Jira.

LEADERSHIP

Rensselaer Center for Open Source   **August 2024 - Present**
Coordinator
- Leading a group of 480 students spanning 120+ different open source projects with a team of 5 other student coordinators.
- Work closely with a room of 30 students, guiding project leads on project planning and conducting daily stand-ups
- Playing a key role in scaling the program, contributing to a steady 10% sign up growth every year.

PROJECT EXPERIENCE

CartX - Project Lead   **September 2023 - Present**
React, Express JS, Python, Selenium, MongoDB
- Providing leadership to 6 students on a cost-optimizing shopping app through a React frontend, Node JS backend, web scraping with Python's Selenium and data storage in MongoDB, achieving up to 30% reduction in user shopping time.
- Architecting and developing backend API routes using Express.js, including custom routes for nearby store location lookups and an algorithm that queries over 5,000 items from five stores in MongoDB to group cross-store items by similarity.
- Automating scraping and normalization with Python Selenium, scheduling runs with cron jobs and storing data in MongoDB.

Finance For All - 1ˢᵗ Place SHPE-NSBE Hackathon   **February 2024**
React, Express JS, Google Gemini
- Built a platform with React and Express.js that leverages AI to simplify bank comparisons for tasks such as account openings, credit cards, and loan interest rates, reducing user research time by 5-10 hours and increasing efficiency by 30%.
- Integrated Google Gemini, to create a responsive chatbot and data collection on banking options to aid financial literacy.

RELEVANT COURSEWORK

Computer Science: Database Systems, Data Structures, Algorithms, Web Development, Computer Org, Principles of Software
Mathematics: Calculus 1 - 3 + Matrix Algebra, Discrete Mathematics, Differential Equations