

Itamar Oren-Naftalovich

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Professional Summary

Computer Science graduate with expertise in machine learning, full-stack development, database/system administration, and API development. Developed advanced machine learning models with high accuracy in multiple fields and utilizing multiple frameworks and data formats. Proficient in NodeJS, Python, C/C++, Go, Rust, and cloud technologies with Docker/Kubernetes.

Education

Rensselaer Polytechnic Institute, Troy, NY *Dec 2024 (BS) — Dec 2025 (MS)*

Bachelor of Computer Science

Master's of Computer Science

GPA: 3.98

Work Experience

CTO *Jun 2025 – Present*

Vidalens, Remote

- Analyzed and Pre-processed data
- Created several machine learning models to perform preliminary testing and detection in order to detect early warning signs of many common diseases and cell defects
- Created a pipeline that allowed the models to use various tools and other model to improve accuracy and clarity

Software Engineer *Feb 2026 – Present*

Quaternion Consulting, Remote

- Migrating current systems to run in secure containers using docker and kubernetes
- Automated existing tasks

Machine Learning Consultant *Jan 2025 – Present*

Shamir Insight Inc, 9938 Via Passar, San Diego, CA

- Developed a containerized technical support chatbot for *Shamir Spark* devices using FastAPI and a CLI, enabling both API-based and interactive command-line support.
- Engineered a retrieval-augmented language model utilizing OllamaEmbeddings,a and a Chroma vector store, among other technologies.
- Developed a data pipeline to parse multiple Excel sheets into a master CSV for the knowledge base.
- Implemented comprehensive safety checks to detect prompt-injection patterns.
- Designed REST endpoints for chat, search, and feedback; sanitized and logged user feedback, automatically generated rephrased answers, and integrated approved feedback back into the vector store via admin workflows.

Software Engineering Intern *Jan 2025 – Aug, 2025*

Allied Business Partners, PO Box 420 Delmar, New York, 12054

- Created a database schema for client details
- Encrypted database to protect financial information
- Built a dashboard with interactive graph to create client system outlines
- Created a GraphQL interface for better integration

Computer Science Course Assistant

Aug 2023 – Aug 2025

Rensselaer Polytechnic Institute, Troy, NY

- Designed Docker containers for multiple esoteric languages (e.g. Haskell, Prolog)
- Automated grading for 300+ submissions using Submittity platform
- Developed reference solutions for complex algorithm problems

Computer Science Intern

May 2022 – Aug 2022

Shamir Insight Inc, Upper Galilee, Israel

- Built ML model (98% accuracy) predicting lens thickness using Scikit-Learn
- Engineered ASP.NET API handling 500+ daily requests to ML models

Software Engineering Intern

Jan 2024 – Aug 2024

Ameba Marketing, Remote

- Worked on a machine learning model to analyze images
- Created creating a system to handle data categorization on a large scale
- Created systems to automatically verify sponsorships using machine learning and data pre and post processing

Technical Skills

- **Languages:** Python, C/C++, C#, Java, JavaScript/TypeScript, Rust, Go, Kotlin, Haskell, Solidity, PHP, Erlang
- **Frameworks & Libraries:** React, Vue.js, Next.js, Node.js/Express, Django, Flask, FastAPI, Electron, .NET (and ASP.NET Core), GraphQL
- **Machine Learning & AI:** Torch (pure), TensorFlow, Scikit-learn, LightGBM, OpenCV, Embeddings & Vector Databases (Chroma), RAG pipelines, Predictive Modeling
- **DevOps & Cloud:** Docker, Podman, Kubernetes, AWS, Azure, Vercel, Nginx, Vagrant, CI/CD (GitHub Actions and Jenkins), Linux (extensive), Shell Scripting
- **Databases:** PostgreSQL, MySQL, SQLite, Redis, Firebase, MSSQL, NoSQL (MongoDB), Database Design/Architecture (e.g. ER Diagrams), ETL Pipelines
- **Tools & APIs:** Git, GitHub, Selenium, Puppeteer, REST / GraphQL API Design, OAuth & JWT Auth, Websockets and live-data streaming, VIOP
- **Embedded & Systems:** Arduino, Raspberry Pi, Kernel-level Programming, Linux System Administration

Relevant Courses

- Machine Learning from Data
- Database Systems
- Operating Systems
- Network Programming
- Software Design & Documentation
- AI and Blockchain
- Programming Languages
- Algorithms & Data Structures
- Cognitive Modeling
- Advanced Data Resource Management

Leadership

Member

Rensselaer Center for Open Source (RCOS)

2022–2025

Languages

- Fluent: English, Hebrew
- Conversational: Spanish