

# Kristofer Ter-Gabrielyan

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## WORK EXPERIENCE

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### GUIDANCE ANALYTICS

Jan 2024 – Jan 2026

#### Lead Backend Engineer

- Led and executed essential redesigns of product backend, reducing monthly hosting and compute costs by **over 40%**, cutting compile times by **~60%**, and reducing DevOps workload by **~10 hours per week**
- Optimized complex **data ingestion** services written in **Python** and querying in **PostgreSQL** and **Spark** for unstructured and processed medical data **APIs**, achieving speedups **over 99%** on large queries
- Co-developed a natural language processing (**NLP**) orchestrator in **Rust** with **gRPC** for **LLMs** and other models, streamlining medical scoring over a **cloud-based distributed system**, processing **10M+ annual reports**, serving **~3,000** providers, and supporting **300+** unique industry classifications
- Collaborated with multiple teams to create client-facing front-end and data submission tools using **TypeScript**
- Ensured user security and HIPAA compliance with **RBAC authentication** systems
- Mentored **3** junior and cohort employees on **Python** and **Rust** stack, positioning them to collaborate on cloud-based product in **Agile development** teams
- Made key decisions in **cross-functional** design planning meetings biweekly, contributing to product development goals in a **fast-paced startup** environment
- Wrote **unit tests** across backend, achieving **~90% coverage**, and integrated them into PR checks and **CI/CD** workflow
- Maintained system integrity using tools like autodeployment with **AWS**, **Docker**, and **GitHub actions**, and monitoring issues with **Sentry**, **Datadog**, and **Cloudwatch**
- Refactored disjoint codebase into common modular core library and **4 microservices**, using Git submodules

#### Junior Software Engineer

- Adapted to new tech stack, learned **Rust** and replaced barebones SQL interfacing with **SeaORM** within first month
- Improved positive surveyed user experiences **~32%** by optimizing **PostgreSQL** schema, **GraphQL** schema, and core product **API platform** in co-operation with front-end team
- Wrote **70+** substantial migrations to transform the database schema over time

### LIFTRYTE

Aug 2022 – Jan 2024

#### Founding Backend Engineer

- Co-developed **React Native** app to assist weightlifters with AI-driven form correction
- Developed user authentication and data storage backend using **TypeScript** on **GCP** and Firebase
- Created open-source scalable API, orchestrator, and CDN for queueing and running **AI/ML** or **computer vision** models on user-submitted videos with **Python**, **Flask**, **Redis**, **PyTorch**, **OpenCV**, and **ffmpeg**

### RENSSELAER POLYTECHNIC INSTITUTE

Aug 2022 – Jan 2024

#### Computer Science Teaching Assistant

- Taught **100+** students per session while leading Office Hours and Labs for 4 semesters
- Mentored students in **Python** coursework, good code habits, **data structures**, and **algorithms**

### ALCHEMICODE LLC

Apr 2020 – Present

#### Founder

- Planned, developed, populated, deployed, and maintained **2 dynamic websites** with **PHP** and **React**
- Created **5** animations for **3** high-profile corporate clients with **Unity**, Photoshop, Premiere, and After Effects
- Managed open-source software projects, and YouTube channels with thousands of subscribers and daily views

## SKILLS

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**Programming Languages:** Rust, Python, Go, C#/.NET, Java, C/C++, TypeScript, HTML/CSS, PHP, Elixir

**Technologies:** PostgreSQL, MySQL, SQLite, MSSQL, Redis, MongoDB, DynamoDB, GraphQL, gRPC, Spark, React

**Environments:** Linux, Docker, AWS (ECS, EC2, S3, Cognito, Aurora, SQS, Elasticache), GCP

## EDUCATION

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### RENSSELAER POLYTECHNIC INSTITUTE

Troy, NY

B.S. Computer Science; Systems & Software; Minor in Music Production; Dean's Honor List

2021-2024

## AWARDS

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- Shodan (black belt), All Eastern US Kendo Federation, 2024
- Eagle Scout, Boy Scouts of America, 2021;
- Certificate of Congressional Recognition, Congressional App Challenge, 2019;