Narek Galstyan

(609) 933-5031 • ngalstyan4@gmail.com • linkedin.com/in/ngalstyan • www.narekg.me

Experience

Co-Founder — Lantern (Y Combinator Winter 24), San Francisco, CA Jul 2023 – Present

Lantern is a PostgreSQL vector database extension for building AI applications. Raised 4.2M seed round.

- Defined the minimum viable product (MVP) strategy and launched Lantern vector database + RAG framework inside PostgreSQL; validated market demand with early customer interest.
- Designed and built a zero-downtime deployment system for client databases, enabling seamless updates to new versions and supporting faster product releases.
- Architected and launched Lantern Cloud, a hosted multi-tenant cloud service for LanternDB, with AI workflows (embedding generation, indexing), automated backups, replication, metrics, usage-based billing.
- Led collaboration with Nvidia to integrate Rapids cuVS GPU-accelerated vector search libraries into PostgreSQL.
- Drove early sales through cold outreach and technical evangelism; signed Greptile, who became our largest customer (millions of queries per day) and who recently raised a Series A with Lantern as core infrastructure.
- Built shadow DOM-based WYSIWYG website editor with LLM-powered code editing; sold custom websites to 2 startups.

Graduate Researcher — UC Berkeley, Berkeley, CA Aug 2020 – Jan 2024

Advised by Prof. Scott Shenker and Prof. Sylvia Ratnasamy.

- Application-Integrated Record-Replay: Developed a record-replay system for distributed system control planes with minimal (<7%) runtime overhead, successfully reproducing issues in large-scale real-world systems such as etcd.
- Oblivious Prefetching: Built application-transparent far memory prefetching, leveraging application access pattern recording. Integrated with Linux memory subsystem, to support unmodified Linux binaries.
- Content Revocation: Prototyped a global revocation system enabling users to control and revoke dissemination of personal content. Conducted full performance evaluation.

Software Engineer, Intern — Tanium, Emeryville, CA Jun 2020 – Aug 2020

Tanium is an IT security firm that provides risk management, incident response and endpoint security.

- Designed a memory-safe C++ wrapper around CentOS `librpm` and integrated it into Tanium Endpoint Security.
- Shipped Linux endpoint data collection modules for 2 enterprise clients, enabling them to achieve 100% endpoint coverage (previously their Linux devices were unmanaged).

Software Engineer, Part-time — Timescale, New York, NY Jun 2018 – Jun 2019

Timescale is an open-source time-series database built on PostgreSQL. Joined as intern when the company had <9 engineers.

- Designed and implemented `show_chunks()` API for exploring time-series data partitions; first TimescaleDB function to return table results from PostgreSQL C API, requiring deep navigation of PostgreSQL internals.
- Identified and patched critical crash bugs in TimescaleDB core, preventing database restart and corruption.
- Enabled edge deployment for an oil mining enterprise customer by porting TimescaleDB to Raspberry Pi.

Education and Research

M.S. in Computer Science, **UC Berkeley**, NetSys Lab, Berkeley, CA Aug 2020 – Jan 2024

Coursework: Advanced Networks, Applications of Parallel Supercomputers, Deep Reinforcement Learning.

Research focused on improving debuggability and fault reproduction of deployed real-world distributed systems.

- Published and presented at HotNets '22; paper on content revocation systems for user data control.
- Collaborated with researchers from Intel and VMware Research on record-replay debugging tools for distributed systems.

B.S.E. in Computer Science (Summa Cum Laude), **Princeton University**, Princeton, NJ Sep 2016 – Jun 2020

- As an undergraduate researcher at Princeton Systems Lab, researched Firecracker VMM design and optimized Linux image boot sequences; identified kernel boot improvements yielding 1.5x faster boot times.
- TA'ed 6 courses, developed interactive demos, assignments and other teaching materials for 3 courses.

ETH Zurich, Zurich, Switzerland Sep 2019 – Jan 2020

Technical Skills

C, Linux, Rust, JavaScript, TypeScript, Python, x86 and ARM Assembly, Lua
PostgreSQL, TimescaleDB, Docker, React, Node, Z3, Onnx