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Github Profile
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Employment

Tech Lead, SWE — Datadog (New York, NY) — *Jun 2023 – Present*

➢ **Community Open Source Engineering**

Founding member of Datadog's Community Open Source Engineering team, where I lead the development of Vector, a widely adopted observability data platform written in Rust. The project was recently featured on Hacker News. I oversee all facets of the project, including defining the roadmap, driving feature development, reviewing pull requests, maintaining/optimizing CI workflows, and shaping the interview process for growing the team.

In addition, I contribute to the Vector Remap Language (VRL), where I introduced new compiler features like unused expression detection. I am currently leading this project by managing releases and providing guidance for community contributions.

In early 2024, I was part of the core team that rebooted the Observability Pipelines (OP) product — based on vector.dev — helping redefine its architecture and long-term direction. Following that, I led several high-impact OP projects, including the design and implementation of a live capture system for ingesting real-time events from a distributed worker fleet.

Senior Software Engineer — Dropbox (New York, Remote) — *Aug 2021 - Jun 2023*

➢ **Core Sync** - *Synchronization Engine*

The synchronization engine is at the heart of most Dropbox products. As a member of the Core Sync team, I led several projects in this area, specifically on replacing our Linux kernel extension using Apple's FileProvider framework. The overarching project was a multi-year, mission-critical effort, and this new Dropbox engine was rolled out to millions of users while I was there. Refer to this article for more details on how the engine was rewritten using Rust.

Software Engineer — Google (New York, Remote) — *Jun 2020 - Aug 2021*

➢ **Unified Traffic Engineering** - *Distributed Systems, Middleware, Networking Infrastructure*

The team owned all micro-services responsible for programming of proprietary as well as commercial networking hardware that serves the **immense** amount of internet traffic passing through the Google data centers.

I spearheaded the design and implementation of a real-time monitoring system aimed at validating consistency between specialized network databases across multiple domains. This necessitated communication and coordination with several teams and stakeholders. Used a plethora of proprietary technologies. After delivering the project, I felt it was time to move on to Rust and other more modern technologies.

Senior Software Engineer — Bloomberg LP (New York, NY) — *Nov 2014 - Jul 2020*

➢ **Gateway Architecture** - *Distributed Systems, Middleware, Networking Infrastructure*

I was involved in the modernization of legacy *Bloomberg gateways* and the implementation of low-level network protocols in C++. This project was a major refactoring challenge, as all Bloomberg terminals connected to these gateways, and a migration without disrupting users was a key requirement.

➢ **Publish/Subscribe middleware** - *Distributed Systems*

I worked in the Message Oriented Middleware team, specifically on DMP, which is a proprietary publish/subscribe middleware that runs on multiple platforms. Almost every application on Bloomberg uses this system to this day. The open sourced blazingmq is a great insight into what the team was working on and it shares quite a few modules with DMP.

I led several DMP projects throughout my tenure, taking responsibility for all stages of development, from designing new features to deployment and user support. I designed and implemented a low-level thread-safe *subscription API* in C++. Additionally, I designed and implemented an application for subscription configuration and routing validation using C++ for the backend and JavaScript for the admin application. I also revamped various side projects related to this framework to support power users.

➢ **Real-time Data Processing** - *London office 2014-2017*

This position kickstarted my career in Software Engineering. My job responsibilities involved maintaining, extending, and optimizing *DataLayer*, a proprietary in-memory data processing framework that powers Bloomberg's financial applications. (C++)

Designed and implemented *profiler* and *replay debugger* for the aforementioned framework. (C++, JAVASCRIPT)

JavaScript *transpiler* for module inlining and static analysis of Datalayer modules. (JAVASCRIPT)

Designed *HBase* database for historical financial data and implemented map-reduce Hadoop jobs. (JAVA)

Education

MSc in Software Engineering — Imperial College London (UK) — *Sep 2013 - Sep 2014*

- **Greade:** Merit
- **Thesis**: *Parallel Architecture for Large-scale Spiking Neural Network Simulation*

  Implemented an Open MPI layer on top of NeMo (spiking neural network simulator) to enable the usage of multiple CPUs/GPUs in an effort to aid the neuroscience community. The main goal was to support larger networks and heterogeneous devices. The project was awarded the *distinction* grade.

Engineer's Degree — Technical University Crete (Greece) — *Sep 2007 - Jul 2013*

- **Title:** Engineer's degree in Electronic and Computer Engineering
- **GPA:** 8.6/10 (Excellent), Top 7% since 1990
- **Thesis:** *Model Driven Development in Wireless Sensor Networks*

  Designed a Domain Specific Language (DSL) and implemented a model compiler which generated NesC code from the DSL code. Contributed to WSN-DPCM, a project that spans across several technical universities and companies, funded by ARTEMIS.
- **Awards:** Multiple scholarships, including the Limmat Stiftung Excellence Awards

Open Source Contributions

- Implemented a well known Gossip protocol algorithm, known as Randomized Rumor Spreading, and integrated it into a very well-known open source project written in (C++). This replaced a pre-existing naive $\mathcal{O}(n^2)$ network broadcasting mechanism with a more efficient mechanism requiring only $\mathcal{O}(n \ln n \ln n)$ transmissions.