

Thomas Gebert

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Computer skills

Java 17	Apache Spark	C++	FFMpeg
Python	GCP	F#	CMS
SQL	Erlang/OTP	Go	TLA+
Clojure	Linux	JavaScript	Vert.x
.NET Framework	Shell Scripting	Node.JS	Docker
Kafka	ZeroMQ	Scala	

Education

Western Governor's University

B.S. Computer Science

Salt Lake City, UT

Experience

Schrodinger

Senior Software Engineer

New York, New York

February 2024 – Present

- Maintained topology of Kafka Streams applications.
- Augmented RocksDB and optimized write throughput on streaming applications.
- Replaced the use of RocksDB with a custom backend using PostgreSQL.
 - Achieved roughly 50% the performance while cutting cloud storage costs down by 80%, and reduced duplication across nodes.
 - Utilized Vert.x, Caffeine Caches, Bloom Filters, LMAX Disrupter, and various heuristics to minimize latency without overwhelming the system.
- Utilized Google Cloud Platform to deploy and maintain distributed applications.

Lead Bank

Senior Software Engineer

New York, New York

September 2023 – November 2023

- Helped scale and maintain the ACH processing system.
- Worked with AWS Lambda, AWS Step Functions, Go, Java, and DynamoDB.
- Used Message Queues like SQS to communicate between services.
- Utilized Docker for local development and testing of applications.
- Enhanced deployment scripts to handle different types of services.
- Oversaw the onboarding of multiple clients onto our platform.

CUNY City Tech

Adjunct Lecturer (Contract)

New York, New York

August 2022 – June 2023

- Taught introductory programming to computer engineering students.
 - Introductory and advanced Python 3 and Java 17.
- Created and graded homework assignments and tests.
- Coded interactive learning modules in JavaScript and Python for students to practice.
- Worked with professors designing cyber-physical systems to help formalize robotics applications.
- Given a perfect score for teacher reviews for two semesters in a row.

OnFrontiers Inc.*Principal Software Engineer***New York, New York***February 2023 – May 2023*

- Facilitated video communication of clients to potential consulting jobs.
- Redesigned core platform to utilize an asynchronous pipeline.
 - Presented my design to Junior and Senior engineers, as well as CTO.
 - Design was approved by team and CTO.
 - Personally led the implementation of the design.
 - Wrote infrastructure code in Python and Go.

Reddit Inc.*Senior Software Engineer***New York, New York***August 2022 – November 2022*

- Used Python, Go, and Docker to help rebuild the image resizing service.
- Utilized Kafka to build distributed systems.
- Wrote build configuration scripts in Python.
- Worked on deployments to Google Cloud Platform.
- Designed and presented new a new version of image caching service.
 - Implemented design after being approved by committee.
 - Decreased cost of image-resizing by over forty percent by moving service in-house instead of outsourcing.

Walmart Global Tech*Staff Software Engineer***New York, New York***August 2021 – August 2022*

- Mentored junior and mid-level engineers in distributed computing and functional programming.
- Made use of message queues to schedule and partition work across multiple nodes.
- Delegated and managed work across several engineers when designing distributed systems.
- Built NLU pipelines for the Chatbot on walmart.com utilizing the Microsoft Bot Framework.
 - Utilized the Microsoft Bot Framework, F# and C#.
- Architected the multi-cluster design of the Chatbot.
 - Decreased chatbot latency by over thirty percent across multiple clusters.
 - Coordinated the release of multi-cluster deployment of chatbot.
- Utilized Microsoft Azure, Linux, and Python to build infrastructure.
- Designed and built APIs with GraphQL.

Thrive Global*Contract Engineer***New York, New York***March 2021 – August 2021*

- Utilized Node.js to build the localization features.
- Used Docker to build microservices.
- Wrote build scripts in Python.

Apple Inc.*Senior Software Engineer***New York, New York***September 2018 – February 2021*

- Designed and built a telemetry and analytics system for finding potential bottlenecks in the cache indexes utilizing Java 11, Clojure, Kafka, Apache Spark, and Tableau.
- Fixed issues and bugs in the iTunes server backend.
- Built a Kafka-based buffering service to reduce load on indexing and caching for iTunes.
- Maintained and expanded rule engine for iTunes, utilizing Objective-C and C++.
- Deployed Java code onto Amazon Web Services and Linux.

Walmart Global Tech (Jet.com)*Senior Software Engineer***Hoboken, New Jersey***July 2016 – August 2018*

- Wrote Microservices in F#.
- Utilized the Microsoft Azure stack.
- Used Apache Kafka to send data between services.
- Utilized Python in conjunction with Apache Spark ML to figure out optimal time to send email.
- Rebuilt the transactional email system to scale to Jet.com size.
- Taught the F# language during code bootcamps.

Tone Mobile

Software Engineer

New York, New York
September 2015 – June 2016

- Wrote and maintained Erlang backends.
- Created modules for Ejabberd.
- Integrated chat server with Node.js backend.

New York University

Research Scientist

New York, New York
March 2015 – September 2015

- Debug Angular.JS frontends.
- Debug Scala backends.
- Help write Haskell backends.
- Programmatically use FFMpeg for video transcoding.

Sq1

Application Developer

Dallas, Texas
May 2014 – February 2015

- Used the Joomla and Wordpress CMS systems to build websites for advertising clients.
- Wrote backends in Node.js.

Senico, LLC

Software Engineer

Dallas, Texas
June 2013 – April 2014

Propulsion Labs

Software Engineer

Dallas, Texas
January 2013 – June 2013

Amerinational Management Services

Web Developer

Orlando, Florida
January 2012 – December 2012

Lockheed Martin

Software Engineering Intern

Orlando, Florida
May 2011 – August 2011

Public Speaking

Lambda Days 2023 – Why Design Your Own Levels When Your Computer Can Do it?: Presented an introduction to doing WebGL with ClojureScript, in addition to showing a few simple procedural level generation algorithms for games

Lambda Days 2022 – Predicting and Preventing Chaos with Formal Methods in TLA+: Presented in Krakow, Poland, an introduction to formal methods via a brief description and demonstration of the TLA+ specification language.

Lambda Days 2020 – Distributed Hash Tables, Video, and Fun!: Presented in Krakow, Poland, the same talk as stated above.

Clojure Conj 2019 – Distributed Hash Tables, Video, and Fun!: Presented in Durham, North Carolina, a demonstration of a project involving a video sharing system using distributed hash tables and to farm out video transcoding.