# **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	Docker
.NET Framework	Shell Scripting	Node.JS	
Kakfa	ZeroMQ	Scala	

### **Education**

#### Western Governor's University

Salt Lake City, UT

B.S. Computer Science

## Experience

Lead Bank

New York, New York

September 2023 – November 2023

- Senior Software EngineerHelped 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 sevices.
- Oversaw the onboarding of multiple clients onto our platform.

#### **CUNY City Tech**

New York, New York

*August 2022 – June 2023* 

- Adjunct Lecturer (Contract)
- 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.

New York, New York

*February* 2023 – *May* 2023

Principal Software Engineer

- 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.

New York, New York

Senior Software Engineer

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

New York, New York

Staff Software Engineer

*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 New York, New York

Contract Engineer

*March* 2021 – *August* 2021

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

Apple Inc. New York, New York

Senior Software Engineer

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++.
- o Deployed Java code onto Amazon Web Services and Linux.

#### Walmart Global Tech (Jet.com)

Hoboken, New Jersey

Senior Software Engineer

July 2016 – August 2018

- Wrote Microservices in F#.
- Utilized the Microsoft Azure stack.
- Used Apache Kafka to send data between services.
- Utilized Python in conjuction 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 New York, New York

Software Engineer

*September 2015 – June 2016* 

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

#### **New York University**

New York, New York

Research Scientist

March 2015 – September 2015

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

Sq1 Dallas, Texas

Application Developer

*May* 2014 – *February* 2015

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

Senico, LLC Dallas, Texas

Software Engineer June 2013 – April 2014

Propulsion Labs Dallas, Texas

Software Engineer January 2013 – June 2013

Amerinational Management Services Orlando, Florida

Web Developer January 2012 – December 2012

Lockheed Martin Orlando, Florida

Software Engineering Intern

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.