Thomas Gebert

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Computer skills

Python	Java	F#	Node.JS
SQL	Linux	Go	.NET Framework
Clojure	Shell Scripting	**Kakfa**	Scala
Haskell	ZeroMQ	JavaScript	**FFMpeg**
Erlang/OTP	C++	**Apache Spark**	TLA+

Education

Western Governor's University   **Salt Lake City, UT**
B.S. Computer Science

University of York   **York, United Kingdom**
Ph.D. Computer Science, Formal Methods
Currently Enrolled

Experience

CUNY City Tech   **New York, New York**
Adjunct Lecturer   *August 2022 – June 2023*
○ Taught introductory programming to computer engineering students.
  - Introductory and advanced Python and Java.
○ 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.

Reddit Inc.   **New York, New York**
Senior Software Engineer   *August 2022 – November 2022*
○ Used Python, Go, and Docker to help rebuild the image resizing service.
○ Wrote build configuration scripts in Python.
○ Worked both in-person and remote.

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.
○ 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#.
○ Coordinated the release of multi-cluster deployment of chatbot.
○ Utilized Microsoft Azure, Linux, and Python to build infrastructure.

Thrive Global   **New York, New York**
Staff Software Engineer   *March 2021 – August 2021*

- Utilized Node.js to build the localization features.
- Used Docker to build microservices.
- 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, 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)   **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*
- Debug Angular.JS frontends.
- Debug Scala backends.
- Help write Haskell backends.
- Programmatically use FFMpeg for video transcoding.

Sq1   **Dallas, Texas**
Application Developer   *May 2014 – February 2015*

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.

Side Projects

FSharp.Csv: A reflection-based CSV serializer, written in F#, designed to handle large, multi-
gigabyte CSV files, while providing a simple, functional interface, and remaining relatively
fast.

Vertigo.Json: A reflection-based JSON serializer and deserializer, designed to be used with F#,
with an emphasis on being easy-to-use, fast, and null-safe.

For more, please visit gitlab.com/tombert