# **Thomas Gebert**

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### Computer skills

Clojure	ZeroMQ	Kakfa	Git
Haskell	C	JavaScript	Scala
Erlang/OTP	F#	Apache Spark	FFMpeg
Java	Go	Node.JS	TLA+

#### Education

Western Governor's University

Salt Lake City, UT

York, United Kingdom

B.S. Computer Science

**University of York** 

Ph.D. Computer Science, Formal Methods

Currently Enrolled

## Experience

**CUNY City Tech** New York, New York Adjunct Lecturer August 2022 – Present

O Teach introductory programming to computer engineering students.

Reddit Inc. New York, New York

Senior Software Engineer

August 2022 – November 2022

O Worked on the image resizing and caching service.

Walmart Global Tech Staff Software Engineer

New York, New York

August 2021 – August 2022

- O Built NLU pipelines for the Chatbot on walmart.com
- O Coordinated the release of multi-cluster deployment of chatbot.

Apple Inc. New York, New York

Senior Software Engineer

*September 2018 – February 2021* 

- O Designed and built a telemetry and analytics system for finding potential bottlenecks in the cache indexes utilizing Clojure, Kafka, Apache Spark, and Tableau.
- O Fixed issues and bugs in the iTunes server backend.
- O Built a Kafka-based buffering service to reduce load on indexing and caching for iTunes.

Hoboken, New Jersey Jet.com July 2016 – August 2018

Senior Software Engineer

Wrote Microservices in F#.

- Utilized the Microsoft Azure stack.
- O Used Apache Kafka to send data between services.
- O Rebuilt the transactional email system to scale to Jet.com size.
- O Taught the F# language during code bootcamps.

Tone Mobile New York, New York

Software Engineer

*September 2015 – June 2016* 

- O Write and maintain Erlang backends.
- O Create modules for Ejabberd.
- O Integrate chat server with Node.js backend.

#### **New York University**

New York, New York

Research Scientist

March 2015 – September 2015

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

Dallas, Texas

Application Developer May 2014 – February 2015

Senico, LLCDallas, TexasSoftware EngineerJune 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**

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.

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

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.

## **Side Projects**

**FSharp.Csv**: A reflection-based CSV serializer, written in F#, designed to handle large, multigigabyte 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.

**Scudlib**: A library, written in Clojure, to do homomorphic encryption. Currently supports the Pallier algorithm.

**Frameworkey: Erlang:** A scalable MVC Framework for Erlang allowing for the composition of route handlers.

**Frameworkey: Promise Edition**: An MVC framework for Node.JS allowing for composable routes.

For more, please visit gitlab.com/tombert