

KEVIN ZHENG

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EDUCATION

UNIVERSITY OF MICHIGAN

B.S.E. in Computer Science, Minor in Mathematics (3.8/4.0 GPA)

Ann Arbor, MI

September 2016 — April 2020

Coursework: Principles of Real-Time Computing · Distributed Systems · Deep Learning for Computer Vision
· Computer Networks · Intro to Operating Systems · Object Oriented & Advanced C++ Programming ·
Data Structures & Algorithms · Intro to Comp. Architecture · Statistics · Combinatorics · Real Analysis

EXPERIENCE

CTRL Labs

Incoming Software Engineer

New York, NY

August 2020

Jump Trading

Software Engineer Intern

Chicago, IL

June 2019 — August 2019

- Developed an order execution gateway on a micro-trading platform to send trades to the CBOE BZX exchange. Integrated gateway with intern-built Risk and UI teams, resulting in an end-to-end click trading platform (**C++**)
- Developed application and automated testing framework for prime broker give-up trades. Applied OOP design patterns to develop a library for shared responsibilities between trade feeders. (**C++**)

Correlation One

Software Engineer Intern

New York, NY

March 2019 — June 2019

- Developed backend, REST APIs, and Python/R autograder for an online data science challenge (**Python, Django**)
- Engineered highly scalable submission worker. Used **Docker** to isolate user code. Designed backend communication to cleanly handle graceful shutdown, error reporting, retries. Used (**Kubernetes**) to scale deployments.
- Set up unit, integration tests, integrated into **Travis CI** pipeline. Parallelized tests, cutting deploy times by **40%**

Facebook

Software Engineer Intern

Menlo Park, CA

January 2019 — March 2019

- Integrated a shot boundary detection model into Video OCR, its first production use-case. (**C++**)
- Created a shot boundary dataset from thousands of Facebook videos, then conducted experiments to find optimal (based on coverage) frame sampling parameters for shot-boundary integrated Video OCR (**Python**)
- Migrated Video OCR signal storage, saving up to **500GB/day** in cheaper storage costs (**Hack/PHP**)

Amazon.com

Software Development Engineering Intern

Seattle, WA

May 2018 — August 2018

- Designed and implemented encrypted customer blacklist. Minimized database calls via caching. Minimized data custodian calls via intermediate keys (**AWS DynamoDB, Lambda, KMS, SNS, SQS**)
- Abstracted customer registration number validation and encryption into a service, decoupling sensitive data handling responsibilities from main platform (**Java, Guice, Lombok**)

PROJECTS

Airbnb Superhost Analysis *Citadel Datathon at the University of Michigan - 1st Place Winner*

- Won \$20,000 prize in team of 4 at a data science challenge to analyze Airbnb rating data. (**Pandas, Tableau**)

Visually Induced Music Platform

- **Raspberry Pi** powered platform to trigger Spotify API events with SIFT object detection (**Python, OpenCV**)

Hammerspoon Suite *OSX Productivity Extensions*

- Productivity extensions on OSX and a desktop schedule tracker for Google Calendar (**Lua, Python**)

ScatterAnimate *Data Visualization Tool*

- Matplotlib-powered tool to animate time-series scatter plot data. Used this tool to analyze grade distribution data between courses at Michigan. (**Python**)

ADDITIONAL

- Avid volunteer photographer, covering multiple campus student events. See photos: kevinzheng.com.
- Presented a seminar on data analytics in Tableau at the 2016 FIRST World Championships
- C++, Python, Golang, Java, R, Matlab, Javascript, Lua, SQL, \LaTeX , Javascript, HTML/CSS
- Kubernetes, Travis CI, Docker, Git, Vim, Google Cloud/AWS