

Tony Tang

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EXPERIENCES

Google – Nest Labs, Palo Alto, California

May 2016 – Sep 2016

Real Time Services – Software Engineer Intern

- Built new scalable platform to allow Nest and partner engineers to develop next generation IoT devices
- Designed and deployed a **Cassandra** database querying system to analyze of over 3 millions IoT device data
- Transformed proto3 data in Cassandra to human readable form by using Google's **Protocol Buffers** APIs
- Increased engineers' productivity by introducing new API endpoints that removed 3 extra steps in workflows
- Refactored **Scala** services to use Dependency Injection to simplify testing and improve code modularity

Snapsale, Oslo, Norway

Sep 2015 – Dec 2015

Back End – Software Engineer Intern

- Resolved deployment infrastructure bug that brought down machine learning servers for 30 minutes
- Reduced response time from 1000ms to 130ms by preloading the required files and libraries into memory
- Scaled **Docker** backend containers and deployed with Google Cloud Load balancing and Autoscaler
- Automated unit and functional testing of code in GitHub by integrating **Jenkins** into development cycle

Medallia, Palo Alto, California

May 2015 – Aug 2015

Front End – Software Engineer Intern

- Developed an **Express** middleware to deliver multiple version of the same application allowing for A/B testing
- Hacked **git** revision to cache individual file in clients' browsers by associating files to their git revision hash
- Optimized loading modules in **CommonJS**, **globals**, and **ES6** by introducing **System.js** and **NPM**
- Reengineered testing framework built in-house with industry standard frameworks **Karma** and **Mocha**

LyricFind, Toronto, Canada

Sep 2014 – Dec 2014

Full Stack – Software Developer

- Utilized **Spring MVC** to build Java web app to search and modify millions of music lyrics via an intuitive UI
- Optimized **MySQL** queries from 10s to 1s by switching data access from lazy loading queries to eager loading
- Implemented Data Access Objects (DAO) to perform CRUD and data serialization for **MySQL** and **Solr**

EDUCATION

Computer Science, Honours, Co-op

2012 - 2017

University of Waterloo, Waterloo, Canada

Residence Life Don, University of Waterloo Residences

Sep 2016 – Present

Coursework: Operating Systems, Algorithm Design and Analysis, Intro to Database Management, Object-Oriented Software Development, Designing Functional Programs, Numerical Computation

PROJECTS (tonyt.me/github)

Bitcoin Algorithm Trading – Tools: *Scala, Google Compute Engine, Google Cloud Datastore*

- Designing data pipeline to process and analyze thousands of trades per minute to make real time decisions
- Building services with Coinbase REST API to track Bitcoin prices in real time via Akka Websocket
- Analyzing and storing time series pricing data to perform statistical analysis of historical prices

PayToPotty – *Meteor.js* hackathon winner, Tools: *Meteor.js, Bootstrap.js, Google Maps API*

- Aimed to address San Francisco public urination by allowing individuals to rent out their personal bathrooms
- Created a platform for individuals to rent out bathrooms and to search and book available bathrooms nearby
- Utilized Google Maps API and GPS information to locate nearby bathrooms and calculating distance and time

Tetris.js – Tools: *Javascript*

- Web based Tetris game implemented Super Rotation System algorithm for complex wall kicks and T spins

SKILLS

- **Languages:** Scala, JavaScript (ES6), Node.js, Java, C/C++, Python, PHP, Ruby, Scheme, Sass, CSS, HTML
- **Frameworks:** Meteor.js, MEAN, Spring MVC, Ruby on Rails, Jekyll
- **Tools:** Cassandra, Protocol Buffers, MySQL, Postgres, Git, Google Cloud Platform, Docker, HTTP/2, Jenkins