

Zhucheng (Michael) Tu

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SKILLS

PROGRAMMING

Proficient:

C/C++ • Python • Java
JavaScript • SQL

Familiar:

R • MATLAB • Scala • C#

SOFTWARE

Data:

Hadoop • Hive • Spark
Presto • Elasticsearch
NumPy • Pandas • scikit-learn • D3.js

Databases:

PostgreSQL • Redis • MongoDB

Web and Mobile:

Flask • Pyramid • Node.js
AngularJS • React • Android

Others:

Git • Vim • AWS • Docker • Thrift

EDUCATION

UNIVERSITY OF WATERLOO

BACHELOR OF SOFTWARE ENGINEERING,
GPA: 3.9

Sept 2012 - Apr 2017 | Waterloo, ON

LINKS

GitHub github.com/tuzhucheng

LinkedIn ca.linkedin.com/in/tuzhucheng

Quora quora.com/Michael-Tu-7

ACTIVITIES

- HackerRank Real Data Challenge - ranked 22/456 participants (Apr 2016)
- Math Faculty Orientation Leader (Sep 2015)
- *The Analytics Edge* Kaggle competition - ranked in top 21% (Aug 2015)
- MathSoc and Class Representative for Software Engineering (2013)

WORK EXPERIENCE

FACEBOOK | DATA ENGINEERING INTERN

January - April 2016 | Menlo Park, CA

- Built data pipelines and visualizations using Hive, Presto, and React for Insights product to help businesses make data driven decisions on Instagram.
- Researched methodologies to rank posts for an audience to boost relevance.

REFLEKTION | SOFTWARE ENGINEERING INTERN, MACHINE LEARNING TEAM

April - August 2015 | San Mateo, CA

- Improved similar and trendy product ranking for recommender system.
- Led implementation and helped design data normalization module in Python.

REFLEKTION | SOFTWARE ENGINEERING INTERN, ANALYTICS TEAM

August - December 2014 | San Mateo, CA

- Implemented the experiment framework, integrated with Kafka/Storm pipeline.
- Prototyped a monitoring and alerting system using StatsD, Graphite, and Cabot.
- Wrote analytics APIs, improved Elasticsearch query speed by up to 5x.

BLACKBERRY | SOFTWARE DEVELOPER CO-OP, WEB SERVICES

January - April 2014 | Waterloo, ON

- Built mobile device management services using the Spring framework in Java.

UNIVERSITY OF WATERLOO | MOBILE APP DEVELOPER, SYSTEMS

April - August 2013 | Kitchener, ON

- Led development of Android app to help exam proctors monitor students.

RESEARCH EXPERIENCE

ECE DEPARTMENT, UWATERLOO | UNDERGRADUATE RESEARCH ASSISTANT

May 2016 - Present | Waterloo, ON

- Supervised by Prof. Mark Crowley working on project using machine learning for continuous detection of anomalous usage on enterprise smartphones.

CREA, UC BERKELEY | RESEARCH ASSISTANT

October 2014 - September 2015 | Waterloo, ON

- Integrated NLP-based relation extractor for biomed texts with PostgreSQL.

PROJECTS (FULL LIST ON GITHUB)

- **Web in a Box** Leading group project to use Raspberry Pi as a proxy and cache web contents, supporting an offline search engine backed by Lucene and analytics on personal browsing habits.
- **Courser Alerter** Used by friends to receive notifications when space opens up for courses that have full enrollment, powered by Flask app running on Heroku.
- **Sudoku Solver** Wrote personal Sudoku solving algorithm, later ported to C# for Windows 8 launch hackathon. Received honorable mention on MSDN.

AWARDS

- 2015 Term Dean's Honour's List (multiple terms)
- 2012 President's Scholarship of Distinction
- 2012 University of Toronto National Book Award (one per high school)