Zhucheng (Michael) Tu

tuzhucheng.com | z3tu@edu.uwaterloo.ca | 226.750.7672

SKILLS

PROGRAMMING

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

Familiar:
MATLAB • Scala

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

UBER | Software Engineering Intern / Co-op, Risk
August – December 2016 | San Francisco, CA
- Engineer features for machine learning models to combat promotion fraud.
- Build text classification model to classify gibberish names.

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.

RESEARCH EXPERIENCE

ECE DEPARTMENT, UWATERLOO | Undergraduate Research Assistant
May – August 2016 | Waterloo, ON
- Built data visualization for anomaly detection of network packets.

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)

- **Prizm** 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.
- **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)