

Zhucheng (Michael) Tu

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SKILLS

PROGRAMMING

2+ years and 5000+ lines:

Python • Java • JavaScript • C/C++

Working Knowledge:

SQL • Bash • \LaTeX • Assembly

Basic Knowledge:

R • MATLAB • Scala • C#

SOFTWARE

Web and Mobile:

Flask • Pyramid • Node.js (Express.js)

• AngularJS • Bootstrap • Android

Data:

Spark • Hadoop Streaming • NumPy

• Pandas • scikit-learn • D3.js

Databases:

MySQL • PostgreSQL • Redis

• MongoDB • Cassandra

Backend:

ElasticSearch • Kafka • Storm • Thrift

Tools/Services:

Git • Vim • Heroku • AWS • Docker

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

COURSEWORK

UNDERGRADUATE

Algorithms

Compilers

Operating Systems

OOP and Design Patterns

Numerical Computation

User Interfaces

ONLINE COURSES

The Analytics Edge

(Top 21% in in-class Kaggle competition)

Intro to Big Data with Apache Spark

Scalable Machine Learning

Intro to Hadoop and MapReduce

Startup Engineering

EXPERIENCE

REFLEKTION INC. | SOFTWARE ENGINEERING INTERN, ML TEAM

Apr 2015 - Aug 2015 | San Mateo, CA

- Created product recommendation similarity/trendiness ranking methods.
- Led implementation and helped design product normalization in Python.

REFLEKTION INC. | SOFTWARE ENGINEERING INTERN, ANALYTICS TEAM

Aug 2014 - Dec 2014 | San Mateo, CA

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

UNIVERSITY OF WATERLOO | WEB DEVELOPER (PART-TIME)

May 2014 - Aug 2014 | Waterloo, ON

- Architected and developed a responsive web application using MongoDB, Express.js and AngularJS to collect public opinions on the Waterloo LRT system.

BLACKBERRY LTD. | SOFTWARE DEVELOPER CO-OP, WEB SERVICES

Jan 2014 - Apr 2014 | Waterloo, ON

- Built mobile device management APIs using the Spring framework in Java, with an emphasis on backward compatibility.

UNIVERSITY OF WATERLOO CENTER FOR EXTENDED LEARNING | MOBILE APPLICATION DEVELOPER, SYSTEMS DEPARTMENT

Apr 2013 - Aug 2013 | Kitchener, ON

- Designed, developed, and field-tested native Android application to help proctors monitor students during exams.

RESEARCH

CENTER FOR RESEARCH AND EDUCATION ON AGING, UC BERKELEY | RESEARCH ASSISTANT

Oct 2014 - Present | Berkeley, CA

- Integrating NLP relation extraction program in a distributed data processing pipeline with PubMed as the corpus, using Scala and Docker.
- Built web app to visualize relations in React, D3.js, and Sigma.js.

AWARDS

2014 Dean's Honour's List (2 terms)

2012 President's Scholarship of Distinction

2012 University of Toronto National Book Award

PROJECTS (SEE GITHUB FOR FULL LIST)

- **Arrhythmia Prediction** Built models using scikit-learn to classify arrhythmia patients with Pyramid web app to take inputs to classify new patients.
- **Courser Alerter** Receive notifications when space opens up for full courses.
- **LaTeXMe** Invite friends to chat with \LaTeX support, built at Facebook Hackathon.
- **GradeTrackr** Co-developed and published Android app to track marks.
- **Sudoku Solver** Sudoku solver written in Java and ported to C# and JavaScript, worked on at Windows 8 Hackathon.