

Zhucheng (Michael) Tu

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SKILLS

PROGRAMMING

Proficient:

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

Familiar:

Scala

SOFTWARE

ML/Deep Learning:

PyTorch • NumPy
Pandas • scikit-learn

Data:

Hadoop • Hive • Spark
Presto • Elasticsearch

Databases:

PostgreSQL • MySQL
Redis • MongoDB

Web and Mobile:

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

Others:

Git • Vim • AWS • Azure
Docker • Thrift • Protobuf

EDUCATION

UNIVERSITY OF WATERLOO

MMATH THESIS

AREAS: INFORMATION RETRIEVAL/NLP

ADVISOR: PROF. JIMMY LIN

May 2017 - Apr 2018 | Waterloo, ON

UNIVERSITY OF WATERLOO

BACHELOR OF SOFTWARE ENGINEERING,

DEAN'S HONOUR'S LIST

Sept 2012 - Apr 2017 | Waterloo, ON

LINKS

GitHub github.com/tuzhucheng

LinkedIn ca.linkedin.com/in/tuzhucheng

ACTIVITIES

- Teaching assistant for CS 451 (Data-Intensive Distributed Computing) & CS 486 (Intro to AI)
- 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

- Engineered features for machine learning models to combat promotion fraud.
- Implemented text classification model to classify spammy 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 an 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.

PUBLICATIONS

- [1] J. Lin, **Z. Tu**, M. Rose, and P. White. Prism: A wireless access point for proxy-based web lifelogging. In *Proceedings of the first Workshop on Lifelogging Tools and Applications*, pages 19–25. ACM, 2016.
- [2] R. Sequiera, G. Baruah, **Z. Tu**, S. Mohammed, J. Rao, H. Zhang, and J. Lin. Exploring the effectiveness of convolutional neural networks for answer selection in end-to-end question answering. In *Proceedings of the SIGIR 2017 Workshop on Neural Information Retrieval (Neu-IR'17)*, 2017.
- [3] R. Tang, W. Wang, **Z. Tu**, and J. Lin. An experimental analysis of the power consumption of convolutional neural networks for keyword spotting. *arXiv preprint arXiv:1711.00333*, 2017.
- [4] **Z. Tu**, M. Crane, R. Sequiera, J. Zhang, and J. Lin. An exploration of approaches to integrating neural reranking models in multi-stage ranking architectures. In *Proceedings of the SIGIR 2017 Workshop on Neural Information Retrieval (Neu-IR'17)*, 2017.

AWARDS

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| 2017 | Nominated for Jessie W.H. Zou Memorial Award for Undergraduate Research |
| 2017 | Math Domestic Graduate Student Award |
| 2017 | University of Waterloo Graduate Scholarship |
| 2012 | President's Scholarship of Distinction |
| 2012 | University of Toronto National Book Award |