Zhucheng (Michael) Tu

tuzhucheng.com | z3tu@uwaterloo.ca | 226.750.7672

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
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) and CS 245 (Logic and Computation)

• 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. Prizm: 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

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