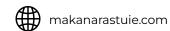
Makan Arastuie



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EDUCATION

Jan. 2018 - Aug. 2020

MSE, Computer Science & Engineering

@ University of Toledo

Toledo, OH

o GPA: 4.00 / 4.00 | Advisor: Kevin S. Xu

o Research focus: Machine Learning & Social Network Analysis

 Thesis: Generative Models of Link Formation and Community Detection in Continuous-time Dynamic Networks

Aug. 2013 – Dec. 2017

BSc, Computer Science & Engineering

@ University of Toledo

Toledo, OH

o GPA: 3.91 / 4.00 | Minor in Mathematics | Honors: Summa cum laude | Tau Beta Pi, ACM, IEEE

PUBLICATIONS

2020

[1] M Arastuie, S Paul, and K Xu. "CHIP: A Hawkes Process Model for Continuous-time Networks with Scalable and Consistent Estimation" *NeurIPS* (*link to paper*)

2019

[2] M Arastuie and K Xu. "Personalized Degrees: Effects on Link Formation in Dynamic Networks from an Egocentric Perspective" *Companion Proceedings of The Web Conference (WWW)* (*link to paper*)

2019

[3] M Sloma, M Arastuie, and K Xu. "Effects of Activity Recognition Window Size and Time Stabilization in the SHL Recognition Challenge" *Human Activity Sensing, Springer (link to paper)*

2018

[4] M Sloma, M Arastuie, and Kevin S. Xu. "Activity Recognition by Classification with Time Stabilization for the SHL Recognition Challenge" *Proceedings of UbiComp (link to paper)*

PROFESSIONAL EXPERIENCES

Industry

Jan. 2022 – Present Aug. 2020 – Jan. 2022

Jan. 2020 – July 2020

Longmont, CO

Sr. Machine Learning Engineer
Machine Learning Engineer II

@ Seagate

Data Science and Machine Learning Intern

Reduced hard drive calibration time by about 509

- Reduced hard drive calibration time by about 50% (3hr) by modeling historical calibration settings using deep unsupervised learning and statistical modeling
- o Collected an industry-specific corpus (~2B tokens) by gathering & cleaning >7M docs from 12 sources
- Trained several industry-specific language models and utilized them in various downstream natural language processing tasks such as summarization, information retrieval, and sentiment analysis
- o Mentored and managed 10 interns on diverse machine learning projects
- o Technologies: Python, PyTorch, SQL, Docker, AWS, DVC, Flask

Aug. 2015 – Dec. 2017

Dec. 2017 Student Software Developer

@ University of Toledo (Simulation & Gaming Studio)

Toledo, OH

- o Collaborated with Twine.it and improved their RESTful API's average response time by about 30%
- o Developed an online educational game to simulate disaster scenes for emergency responders
- o Technologies: C#, C++, JavaScript, SQL, HTML, CSS, Azure, REST

Jan. 2015 - May 2015

Software Developer Intern

@ Diebold Nixdorf

Canton, OH

- o Improved ATM's front-end UX and UI which reduced withdraw transaction time by about 40%
- o Upgraded ATM's massaging simulator to keep it compatible with new back-end updates
- o Technologies: C#, JavaScript, RabbitMQ, HTML, CSS, Object oriented programming

Research

Jan. 2018 - Dec. 2019 May 2016 - Dec. 2017

Toledo, OH

Graduate Research Assistant Undergraduate Research Assistant @ IDEAS Lab (Univ. of Toledo EECS Dept.)

- Proposed a generative model for continuous-time networks of relational events with scalable and consistent estimators (publication [1])
- o Developed a Python package for the study of dynamic networks (link to documentation)
- Designed a machine learning post-processing technique to improve prediction accuracy of human activity, using smartphone sensor data (publications [3, 4])
- Analyzed the impacts of local neighborhoods on predicting future interactions among people in social networks (publication [2])
- o Technologies: Python, TensorFlow, PyTorch

Teaching

2018 - 2019

Teaching Assistant

@ University of Toledo

Toledo, OH

- o EECS 1510, Object Oriented Programming, Spring 2018
- o EECS 3100, Embedded Systems, Summer 2018
- o EECS 1100, Digital Logic Design, Fall 2018 Spring 2019

PROFESSIONAL SERVICES

2020

Program Committee: SocInfo (2020)

2018 - 2021

Reviewer: The Web Conference (WWW) (2019, 2020, 2021)

IEEE Transactions on Computational Social Systems (2021) - IEEE BigData (2020)

Journal of Data Science and Analytics (2020, 2021) - Journal of Complex Networks (2019)

SocInfo (2019, 2020)

PROJECTS

Feb. 2018 - Present

Founding Contributor of DyNetworkX – IDEAS Lab

An open-source Python package for the analysis of discrete- and continuous-time dynamic networks

o Documentation & source code: dynetworkx.readthedocs.io

Jan. 2016 - July 2016

Connected UT - Solo Project

A website for the University of Toledo's students to sell/buy textbooks, with extended search options

o Source code: github.com/makan-ar/connected-ut

AWARDS

2018 Dean's Assistantship

@ University of Toledo

Awarded once a year to one incoming master's student in the College of Engineering

2017 Undergraduate Summer Research grant

@ University of Toledo

2013 International Student Scholarship

@ University of Toledo

RELEVANT COURSEWORK

Natural Language Processing Specialization (Coursera MOOCs)

Deep Unsupervised Learning (Open access course by UC Berkeley / in progress)

Deep Learning Specialization (Coursera MOOCs) | Probabilistic Methods in Data Science

Machine Learning | Social and Information Networks | Artificial Intelligence

Data Learning | Linear Statistical Models | Statistical Computing