Yihan Zhou (Joey)

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EDUCATION

The University of Texas at Austin — Austin, TX
PhD in Computer Science, currently working with Eric Price — *Sep 2021 – Now*

The University of British Columbia (Major Average: 91.1/100) — Vancouver, BC
Master of Science in Computer Science, co-supervised by Mark Schmidt and Nick Harvey — *Sep 2018 – Aug 2020*

University of Waterloo (Major Average: 90.13/100) — Waterloo, ON
Bachelor of Mathematics in Computer Science, Joint Major in Combinatorics and Optimization — *Jan 2015 – Aug 2018*

RESEARCH PROJECTS

A Competitive Algorithm for Agnostic Active Learning
E. Price, **Y. Zhou**. *NeurIPS 2023* [arXiv]
- We developed a polynomial algorithm for active binary classification whose query complexity is never worse than a multiplicative log factor of the best possible algorithm and showed a matching lower bound.

Analyzing and Improving Greedy 2-Coordinate Updates For Equality-Constrained Optimization via Steepest Descent in the 1-Norm
A. V. Ramesh, A. Mishkin, M. Schmidt, **Y. Zhou**, J. W. Lavington, J. She. [arXiv]
- We developed fast greedy 2-coordinate descent algorithms for smooth functions with sum and box constraints and derived convergence rate bounds.

Regret Bounds without Lipschitz Continuity : Online Learning with Relative-Lipschitz Losses
Y. Zhou*, V. S. Portella*, M. Schmidt, N. J. A. Harvey. *NeurIPS 2020* [arXiv]
- We extended the known regret bounds for classical online convex optimization algorithms to the relative Lipschitz setting.

Replication of Machine-Learning Analyses to Predict Response to Antidepressant Medications in Patients with Major Depressive Disorder
J. Nunez, T. Nguyen, **Y. Zhou**, B. N. Frey, G. M. MacQueen, R. Milev, D. J. Müller, S. Rotzinger,
J. A. Foster, S. H. Kennedy, G. Turecki, C. Bao, R. Ng, R. W. Lam.
PLOS One [Link]
- We re-implemented a previous study's predicative models on clinical effectiveness of certain antidepressants and externally validate their performance on a new dataset.

WORK EXPERIENCE

Web Developer — Jan 2016 – Apr 2016
Qlik — *Ottawa, ON, Canada*
- Built a web app named Pythia to extract data from Google Analytics, New Relic, AWS EC2 and Elastic Search by making REST API calls and upload such data to Mongo Database.

Software Developer — Sep 2016 – Dec 2016
NN Life Japan — *Tokyo, Japan*
- Designed and implemented a daily process in Windows PowerShell to fetch useful data and use them to make predictions on the number of expected telephone calls daily.

TEACHING

Graduate Teaching Assistant — Sep 2018 – Apr 2020
The University of British Columbia
- CPSC 340 - Machine Learning and Data Mining
- CPSC 320 - Intermediate Algorithm Design and Analysis
- CPSC 420 - Advanced Algorithm Design and Analysis

Awards

Graduation Dean's Honours List 2018

University of Waterloo

- Highest degree honour

Faculty of Mathematics Senate Scholarship 2016 – 2018

University of Waterloo

University of Waterloo President's Scholarship 2015

University of Waterloo

SERVICES AND ACTIVITIES

Student volunteer at NeurIPS 2019

Reviewer for NeurIPS 2022, ICML 2023, NeurIPS 2023, SODA 2024