tongyu zhou

PhD Student · Human-Computer Interaction

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Education

Brown University *Providence, RI*
Ph.D. in Computer Science *2020 - present*
  Advisor: Jeff Huang

Williams College *Williamstown, MA*
B.A. in Computer Science and Statistics *2016 - 2020*
  Advisor: Iris Howley
  Thesis: "Confusion Detection on Annotator Affect"
  Academic Honor Societies: *Sigma Xi*, *Mu Sigma Rho*

Aquincum Institute of Technology *Budapest, Hungary*
Computer Science Study Abroad Program *2018 - 2019*

Research Experience

Brown University – Research Assistant *Providence, RI*
Advisor: Jeff Huang *2020-present*
- Working on systems spanning both the web and AR domains to support individual, collective, and collaborative creativity by encouraging users to derive inspiration from their peers or by example.

Research in Industrial Projects for Students (REU at IPAM, UCLA) – Student Researcher *Los Angeles, CA*
Mentors: Victor Lin, Leah Ruckle, Karen Wood, Minh Pham *2019*
- Designed genetic algorithms to predict Walker constellation parameters that minimized 98% global dilution of precision
- Technical report: "Combining Genetic Algorithms and Machine Learning (CgALM) for Modeling Complex Systems"

Williams College Department of Computer Science – Research Assistant *Williamstown, MA*
Advisor: Iris Howley *2018*
- Created interactive explainables to teach Bayesian Knowledge Tracing to various levels of understanding to spread algorithmic transparency and interpretability, work was instrumental in NSF Grant #1849984

Gavril Pasternak Lab, Memorial Sloan Kettering Cancer Center – Bioinformatics Intern *New York, NY*
Mentor: Takeshi Irie *2017*
- Constructed data models and interactive cladograms to visualize relationships between G-protein coupled receptors splice variants and alternative promoters, signal peptides, and exon abundance

Publications

* equal contribution

Conferences

Sarah Bawabe*, Laura Wilson*, **Tongyu Zhou***, Ezra Marks, and Jeff Huang. (2021). The UX Factor: Using Comparative Peer Review to Evaluate Designs through User Preferences. In Proceedings of the 2021 Conference on Computer-supported Cooperative Work (CSCW '21). ACM, to appear. (**Honorable Mention Award, Impact Recognition Award**)

Jing Qian*, **Tongyu Zhou***, Meredith Young-Ng*, Jiaju Ma, Angel Cheung, Xiangyu Li, Ian Gonsher, and Jeff Huang. (2021). Portalware: Exploring Free-Hand AR Drawing with a Dual-Display Smartphone-Wearable Paradigm. In Designing Interactive Systems Conference 2021 (DIS '21). ACM, 205–219.

Jacob Chang, Rachel Duquette, Katherine Thai, **Tongyu Zhou**, Minh Pham, Victor Lin, and Karen Wood. (2020). Combining Genetic Algorithms and Machine Learning for Exploring the Navigation Satellite Constellation Design Tradespace. In

Proceedings of the 33rd International Technical Meeting of the Satellite Division of The Institute of Navigation (ION GNSS+ 2020). 407–413.

Tongyu Zhou*, Haoyu Sheng*, and Iris Howley. (2020). Assessing Post-hoc Explainability of the BKT Algorithm. In Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AIES '20). ACM, 407–413.

WORKSHOPS & EXTENDED ABSTRACTS

Young Cho, Grace Mazzarella, Kelvin Tejeda, **Tongyu Zhou**, and Iris Howley. (2020). What is Bayesian Knowledge Tracing? Poster presentation at the IEEE VIS Workshop on Visualization for AI Explainability.

Awards, Fellowships, & Grants

2020	**Andries van Dam Graduate Fellowship**, Brown University
2020	**Outstanding Undergraduate Researcher Awards Honorable Mention**, CRA
2019	**Computer Science Class of 1960's Scholars**, Williams College
2018	**Summer Science Research Fellowship**, Williams College
2017	**Murphy Family Scholarship**, Williams College

Teaching Experience

2019-2020	**Algorithm Design and Analysis**, Teaching Assistant for Shikha Singh, Williams College
Fall 2018	**Algorithm Design and Analysis**, Teaching Assistant for William Lenhart, Williams College
Fall 2017	**Data Structures and Advanced Programming**, Teaching Assistant for Andrea Danyluk & Iris Howley, Williams College

Mentoring

Spring 2021	**Sarah Bawabe, Laura Wilson**, Brown HCI Lab
Spring 2021	**Aurora Vo**, ExploreCSR program
Fall 2020	**Ezra Marks**, Brown HCI Lab

Other Extracurricular & Work Activities

SERVICE AND OUTREACH

CollegeVine   *Cambridge, MA*
APPLICATIONS CONSULTANT   *2017-2019*
- Conducted one-on-one advising for college applicants, edited applications for coding camps, and worked with clients through online CS courses

Williams College Chinese-American Student Organization   *Williamstown, MA*
SOCIAL CHAIR   *2017-2018*
- Responsible for intra-organization relations through instating programs and planning events that encourage building friendships and community among current members

CYI Chinatown Literacy Project   *New York, NY*
LANGUAGE PARTNER   *2013-2016*
- Taught non-native speakers the English language at a program aimed to spread literacy through personalized instruction and held workshops on prevalent community and civic issues

OTHER SKILLS

Art & Design: [portfolio]