MINGJIA CAI

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EDUCATION

Ph.D. in Computer Science   Current
University of Utah

M.S. in Computer Science   May 2024
Tufts University

B.S. in Mathematics, minor in Computer Science   Mar 2020
University of Washington

EXPERIENCE

Research Assistant   Sep 2023 - April 2024
VALT Lab @ Tufts University   *Advisor: Prof. Remco Chang*

- Researching and implementing novel techniques in Visual Analysis, develop interactive systems that facilitate Hypothesis Driven Data Analysis.

AI Developer Intern   Jun 2021 - Oct 2021
Inspur Group, Jinan, China

- Collaborated with senior developers and researchers to develop an advanced human tracking system for the company's commercial service robot, enhancing functionality and user experience.

Software Engineer Intern   Jun 2020 - Dec 2020
Aeyesafe Inc., Seattle

- Enhanced the company's senior safety monitoring system by modifying and deploying deep learning models, improving detection accuracy and system responsiveness. Additionally, updated and implemented new features in internal software, contributing to system efficiency and functionality.

Undergraduate Research Assistant   Jun 2019 - Mar 2020
DAIS Lab @ University of Washington   *Advisor: Prof. Thomas Humphries*

- Reproduced a paper, adjusted and improved the model to denoise and improve CT images' visual quality. Introduced a new image processing technique to the system.

PROJECTS

HypoExplorer   Sep 2023 - April 2024
VALT Lab @ Tufts University

- Continued development on an interactive visual interface facilitating hypothesis generation based on user-defined analysis tasks and data attributes of interest.
- Incorporated a parser for The Grammar of Hypothesis-Driven Visual Analysis.
- Integrated Large Language Model to better facilitate user interactions and experience.

TECHNICAL SKILLS

Programming Languages	Python, JavaScript, C++, Java
Libraries	D3.JS, Pytorch, OpenCV
Others	Linux, Tableau, Nvidia Omniverse