Miaoya Zhong

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EDUCATION

!"#$%&'()*$+,-'.+"/0)Stanford, CA)))))) *Expected 06/ 2027*)
Master of Science in Computer Science Current GPA:**12345126)**
Relevant Courses: Artificial Intelligence: Principles and Techniques, Deep Learning, Design and Analysis of Algorithms, Computer Organization and Systems

7#',#'()*$+,-'.+"/0)Cambridge, MA)))))))))))))))))))))) *05/2022*
Master of Education in Learning Design, Innovation, and Technology))))))))GPA:**126**
***$+,-'.+"/)&%) 8 +.9&$.+$:;#(+.&$0)**Madison, WI)))) *12/2020*
Bachelor of Science in Elementary Education-Early Childhood & ESL GPA:**<2=<5126**

TECHNICAL PROJECTS

>-.-#'9?)@'&A-9"):) Tactile Sensing for OceanOneK Underwater Robot *06/2024 - 10/2024*
Advisor: *Mark Cutkosky, Stanford Biomimetics & Dexterous Manipulation Lab*

- Designed a **B+C-':D'#EE:F'#"+$E).-$.&'** for the OceanOneK robot's hands to enhance tactile sensing.
- Collected and processed experimental data using force–torque sensors and optical interrogators.
- Implemented **#)%GHH/)9&$$-9"-()$-G'#H)$-"I&'J)K4)H#/-'.0)L1)$-G'&$.)-#9?0)>-M*)#9"+,#"+&$N** to predict force and contact status, with)**@/O&'9?** and data preprocessing (normalization, filtering). Achieved **;!P) Q)6232R0)>S)Q)62=T** with 80/20 train–test split and nearly identical training/validation loss (0.0521 / 0.0522).
- Assisted in developing a **I?+.J-':+$.U+'-()"#9"+H-).-$.&'** for underwater perception, showcased at the **!"#$%&'()>&C&"+9.)V-$"-')M#G$9?**.

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@'&A-9"):) Student Revision Behavior Analysis)**KD'&$W-)XI#'(0)O&U)4Y)+$)9H#..N)**)))))))))))))*05/2024*

- Designed and implemented statistical models (**C&&"."'#U)?/U&"?-.+.)"-."+$E0)9&''-H#"+&$)#$#H/.+.0) @&+..&$5F-&Z-"'+9)(+."'+CG"+&$.**) to analyze revision patterns from 40 students' projects.
- Built and evaluated **[#+,-)D#/-.)9H#..+%+-'.** to predict project preferences, achieving up to 100% test accuracy on certain datasets, utilizing Python (NumPy, pandas, scikit-learn) for **(#"#)U'-U'&9-..+$E0) U'&C#C+H+."+9)Z&(-H+$E0)#$(),+.G#H+W#"+&$2**
- Published a research-style paper and reproducible code on GitHub, demonstrating strong data analysis and machine learning skills.

WORK EXPERIENCE

V&ZUG"-')!9+-$9-)O-#9?-'))))))) *)))))))08/2023 - 05/2025*
The Quarry Lane School, Dublin, CA

- Designed customized AP Computer Science Principles (AP CSP) and Middle School Computer Science curricula using Python, Java, HTML, and CSS, resulting in a significant increase in the AP CSP class average score from **<2L45R)"&)12435R** (2024 California average: 3.08, global average: 2.90).

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PH-Z-$"#'/)!OP;)O-#9?-')))))))))))))))))))))))*09/2019-07/2021, 06/2022-06/2023*
Stanford Madera Groove Children Center, TCTM Kids IT Education Inc, Various Elementary Schools

- Taught **'&C&"+9)U'&E'#Z Z+$E** with Scratch, Lego Mindstorms, Lego WeDo 2.0, and Python
- Utilized classroom materials to implement STEM activities and maintained communication with parents

PUBLICATION

Li, H.*, Xing, C.*, Khan, S., **\?&$E0);2**, & Cutkosky, M. R. (2025). Whisker-Inspired Tactile Sensing: A Sim2Real Approach for Precise Underwater Contact Tracking. *IEEE Robotics and Automation Letters(RA-L)*

SKILLS

- **@'&E'#Z+$E])**Python, C++, C, Java, JavaScript, Processing, R, HTML/CSS
- **B'#Z-I&'J.)^)O&&H.])**NumPy, pandas, PyTorch, Onshape CAD, CorelDRAW, Casting, Adobe Photoshop
- **M#$EG#E-.]** Mandarin (Native), English (Proficient), Cantonese (Intermediate)