**Miaoya Zhong**

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**EDUCATION**

**Stanford University, Stanford, CA** (online)  **Sept 2022 to Present**

Graduate Certificate: Introductory Programming, Foundations in Computer Science Current GPA:**4.12/4.0**

**Harvard University, Cambridge, MA Sept 2021 to May 2022**

Master of Education in Learning Design, Innovation, and Technology GPA:**4.0/4.0**

**University of Wisconsin-Madison, Madison, WI Sep 2017 to Dec 2020**

Bachelor of Science in Elementary Education-Early Childhood & ESL GPA:**3.93/4.0**

Certificate: Education and Educational Services

**Awards:** **Graduate with Distinction**, Dean’s list Fall 2017-Fall 2020, School of Edu Scholarship, HGSE Grant

**SKILLS**

* **Programing Language:** Python, C++, C, Java, HTML, CSS, JavaScript, Ink, Processing, R, Scratch, MIT App Inventor, Google Blockly, LEGO Mindstorms & WeDo2.0, GoGo Board
* **Technical Skill:** Onshape, CorelDRAW, Laser Cutting, 3D printing, Unity (C#), Roblox Studio (Lua), Adobe Photoshop, Microsoft Suite, Google Suite
* **Languages:** Mandarin (Native), English (Proficient), Cantonese (Intermediate)

**RESEARCH EXPERIENCE**

**Research Assistant in Biomimetics and Dexterous Manipulation Lab** June 2024 to Present

Stanford University, CA

* Designed and implemented a **Fiber-Bragg-Grating-based sensor** for the OceanOneK Robot's hands.
* Improved the hand fabrication process for the OceanOneK Robot, employing a combination of **3D printing and casting techniques.**
* Contributed to the design of a whisker-inspired tactile sensor for underwater robots, showcased at the **Stanford Robotics Center Launch**.
* Conducted and designed experiments to collect data using force-torque sensors and interrogator.
* Implemented **machine learning** algorithms to train predictive models for force and contact status and developed **data visualization**.

**Research Assistant in Department of Educational Psychology** January 2019 to Dec 2020

University of Wisconsin-Madison, WI

* Conducted experiments and contributed to participant recruitment for educational psychology studies.
* Transcribed participant interviews and encoded responses to analyze student feedback.
* Collected and analyzed data on **representational competencies in educational video games for astronomy learning** (rau-lab).
* Authored literature reviews focused on mathematical pedagogy.
* Supported the design of experiments investigating representations in teaching mathematical theorems (MAGIC Lab).
* Presented research at the **Undergraduate Research Symposium** with poster *“The Significance of Objects, Icons, and Symbols in Mathematics Learning.”*

**TEACHING EXPERIENCE**

**Computer Science Teacher in Quarry Lane School** Aug 2023 to Present

Dublin, CA

* Teach **AP Computer Science Principles** (AP CSP) and **Middle School Computer Science**, foster computational thinking, interest in Computer Science, and a strong foundation in programming.
* **Design and implement** a customized **curriculum** for students in **Grades 7-12**, tailoring instruction to meet the diverse learning needs and academic goals of each student.
* Lead **Game Design club,** facilitate a homeroom, andchaperone debate and speech tournaments as a judge, enhancing student engagement and promoting a collaborative learning community.

**Teacher in Stanford Madera Grove Children’s center** Jun 2022 to Jun 2023

Stanford, CA

* Utilized classroom materials to **implement STEAM activities** and promote an environment conducive to age-appropriate levels of development, interests, and special needs of the children.
* Created **documentation** of student work such as portfolios and wall display.
* Maintained an open line of **communication** with parents, provide appropriate information, and share relevant feedback from parents with teacher team.

**Robotic Programming Teacher in TCTM Kids IT Education Inc.** (NASDAQ: TCTM)Feb 2021 to Jul 2021

Shenzhen, China

* Taught Lego construction and **robotic programming** with Scratch, Lego Mindstorms, Lego WeDo 2.0, and Python in **Grade Pre-8**
* Worked on developing the product exhibitions and activity design, **assisted in training new teachers.**

**Practicum** Sep 2019 to Dec 2020

Hugel Elementary School, Kindergarten, WI

Milele Chikasa Anana Elementary School, TK, WI

Midvale Elementary School, Second grade, WI (online)

* Taught lessons in rotating centers including **reading, writing, math, science, art and crafting.**
* Led the daily morning activity for class. Designed unit of lesson plans with a focus on **literacy learning** and foregrounding **social justice.**
* Observed and provided individualized assistance for **children with disabilities** and **emergent bilingual students.**

**Volunteer in MSCR Safe Haven After-school program** Feb 2018 to May 2019

Emerson Elementary School, WI

* Read and discussed stories with children to **facilitate social emotional learning**
* Created math problems and **instructed math**
* Assisted teachers to help children with special needs