## Stephen Richard Zhu

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#### **EDUCATION**

Stanford University September 2023

• M.S. in Electrical Engineering

University of Illinois at Urbana Champaign | GPA: 3.94/4.0 August 2019 – May 2023

• B.S. in Electrical Engineering, Minor in CS

BASIS Independent Silicon Valley (BISV) | GPA: 3.94/4.0 August 2015 – May 2019

# **EXPERIENCE**

Research Intern at UIUC Spring of 2022 - 2023

• Designed and prototyped a small modular robot for large-scale 2D molecular simulations

• Sought and obtained research funding independently

• Constructed cable-driven soft robot and wrote undergraduate thesis

Software Intern at ASML Summer of 2021

• Prepared images for error analysis through image registration

• Experimented with various edge detectors and misalignment indices

Research Intern at Stanford University

Summer of 2020

• Researched methods to analyze dehydration levels through wearable sensors

• Worked for a postdoc and oversaw a junior member

Software Intern at Anx Robotica

Summer of 2019

• Trained a model to denoise images taken through endoscopy

• Achieved PSNR (denoising magnitude) of 41.47 & SSIM (image retention) of 0.9918

### **SKILLS & ACHIEVEMENTS**

Languages: Python, Java, C, C++, HTML5 & SystemVerilog (familiar); Japanese (intermediate)

Programs: MatLab, Eagle, SolidWorks, Fusion 360, Altera Quartus, Quartus Prime, LTspice (familiar)

UIUC Course: Control Systems

Fall 2022

• Designed and actualized a self-balancing upright pendulum arm

UIUC Course: Digital System Laboratory

Spring 2021

• Implemented Pacman from scratch on Intel DE10-Lite FPGA

Eagle Scout Rank in Boy Scouts of America

January 28, 2019

• Set up guidelines for organizing events and trained younger scouts as the Senior Patrol Leader

Patents: US Pat. No. 10,283,003 & CN Pat. No. ZL201821449355.9

Filed on September 9, 2017

• Designed electronic system for Alzheimer's patients to find their belongings

### **VOLUNTEERING**

Loloma Foundation – Solomon Islands

Summers of 2017 and 2018

• Assisted doctors and initiated project to deliver glasses for villagers