Minxing (Tony) Pan

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Education

Computer Science Engineering
09/2018 – present

University of Michigan, Ann Arbor, United States
GPA: 3.66 Major GPA: 3.85
Currently Taking: EECS 467 Autonomous Robotics Design Experience
Courses Taken: EECS 281 Data Structures and Algorithms, EECS 370 Intro to Computer Organization, EECS 399 Directed Studies, EECS 203 Discrete Math

Stanford Summer Session
06/2017 – 08/2017

Stanford University, Palo Alto, United States
GPA: 3.8

High School
01/2016 – 06/2018

University Liggett School, Grosse Pointe, United States
Graduated Summa Cum Laude

Research experience

Research Assistant
01/2019 – present

SOAR Cognitive Architecture, Ann Arbor, United States
Integrate SOAR cognitive architecture with Anki's Cozmo robots

Research Assistant
10/2018 – present

Shtein Lab, Ann Arbor, United States
Develope hardware and software for a kirigami sensor project
Design, build, and program a novel 3D printer

International Summer Science Institute
07/2018 – 07/2018

Weizmann Institute of Science, Rehovot, Israel
Conducted research project "Making the Invisible Visible: Optimizing Laser Speckle Imaging Using Machine Learning and Targeted Recoloring" with Prof. Vyacheslav Kalchenko

Publication

Machine Learning Assisted Blood Vessel Segmentation in Laser Speckle Imaging
03/2019

Proceedings of Society of Photo-Optical Instrumentation Engineers (SPIE)
https://doi.org/10.1117/12.2510378
Gave an oral presentation at the SPIE Photonics West BiOS Conference.

- Wrote ImageJ Macro and Java programs to create montages with different color maps
- Trained binary classifiers on FIJI and applied them on stacks with higher statistical noise
- Applied sinusoidal, gamma and other math functions to manipulate hue and saturation
- Developed a workflow to enhance laser speckle images for real time surgical use

Awards

University Honors Dean's List
12/2018

University of Michigan College of Engineering

Intel International Science and Engineering Fair (ISEF) Finalist
05/2018

Made my own graphene supercapacitors from inexpensive and available material.
Won grand award at Detroit science fair and competed at ISEF

FIRST Robotics Competition (FRC) Dean's List District Finalist
03/2017

Captain of a high school robotics team and mentor of two middle school teams for two years.
Dean's List celebrate students with mentorship, leadership, and technical accomplishment.

Skills

Programming

Java, C/C++, ImageJ Macro, Git, HTML, Python, SOAR, MATLAB, Assembly