Tai Kao-Sowa

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EDUCATION

Stanford University **Stanford, CA**

BS Candidate in Electrical Eng., MS Candidate in BioEng. *Expected Dual Graduation: June 2021*

GPA: 3.73

Relevant Coursework: *Translational Bioinformatics, Convex Optimization, Linear Dynamical Systems, Neuroelectrical engineering, Introduction to Systems Biology, Introduction to Control Systems*

Thomas Jefferson High School for Science and Technology **Alexandria, VA**

Biotechnology Research Lab *September 2012-June 2016*

GPA: 4.45

EXPERIENCE

IBEKA **Jakarta, Indonesia**

Electrical Engineering Intern *Summer 2019*

- Developed remote monitoring system for rural micro hydroelectric power plants and presented work at Stanford's Symposia of Undergraduate Research and Public Service.
- Circuit simulation and design, power electronics, and in-field implementation and testing.

Miroculus Inc. **San Francisco, CA**

Electrical Engineering Intern *Summer 2018*

- Worked on digital microfluidics automation: circuitry, control systems, firmware.

Neural Prosthetic Systems Lab **Stanford, CA**

Research Assistant *Spring 2018*

- Aid in completing and debugging an autonomous system designed to train reaching tasks for BMI experiments with nonhuman primates.
- Worked in Simulink, Matlab and C under Dr. Michaels, a post doc for Professor Shenoy.

Stanford Integrated Biomedical Systems Lab **Stanford, CA**

REU Intern *Summer 2017*

- Worked on chip design for wireless hippocampal engram circuit neuron stimulation. Potential for memory recovery and reconsolidation in amnesic mice. Worked with Cadence circuit simulations.
- Presented at Stanford's REU poster session. Graduate advisor was Yi Liu under Professor Ada Poon.

TJHSST Biotechnology Lab & Georgetown AVRIC Lab **Alexandria, VA**

Original Researcher *September 2014 – June 2016*

- Investigated the effect of Ara h2 peanut allergen on PHA-induced canine dendritic cells as a possible pathway to atopic dermatitis via errant activation.
- Investigated the effect of folic acid on Treg cell induction in vitro as a possible natural treatment for autoimmune disease. Original research sponsored by Dr. Bellanti under Georgetown's department of Microbiology and Immunology.

SKILLS/PROJECTS

- Programming ability in Python, MATLAB. Proficient with C, C++, Java, Verilog, Simulink, Cadence & Spectre circuit simulation, Eagle/Altium PCB designs
- Flow cytometry, qPCR, western/southern blotting, polyacrylamide & PAGE gels, electrophysiology
- Stanford Student Space Initiative, microfluidics biology team 2017-2018.
- Former Stanford Brazilian Jiu Jitsu President and avid backpacker