

# Tai Kao-Sowa

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## EDUCATION

### Stanford University

BS Candidate in Neuroelectrical Engineering

GPA: 3.84

Relevant Coursework: Neuroelectrical engineering, Brain Machine Interfacing, Baremetal Comp. Systems

Stanford, CA

Expected Graduation: June 2020

### Thomas Jefferson High School for Science and Technology

Biotechnology Lab

GPA: 4.45

Relevant Coursework: DNA Science, Neurobiology, Organic Chemistry, Analog Electronics, Multi/Linear

Alexandria, VA

September 2012-June 2016

## EXPERIENCE

### Miroculus

Electrical Engineering Intern

- Intern working on electrofluidics for lab-on-a-chip miRNA cancer diagnosis

San Francisco, CA

Summer 2018

### Neural Prosthetic Systems Lab

Research Assistant

- Aid in completing and debugging an autonomous system designed to train reaching tasks for BMI experiments with nonhuman nonhuman primates. Working in Simulink, Matlab and C.
- Worked part-time in Krishna Shenoy's lab under Dr. Michaels

Stanford, CA

Spring 2018

### Stanford Integrated Biomedical Systems Lab

REU Intern

- 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.
- Worked on a team in Dr. Ada Poon's lab led by Dr. Mazi Taghivand. Graduate advisor: Yi Liu

Stanford, CA

Summer 2017

### TJHSST Biotechnology Lab

Original Researcher

- Investigated the effect of Ara h2 peanut allergen on PHA-induced canine dendritic cells as a possible pathway to atopic dermatitis via errant activation.
- Conducting original research with Hasan Ahmad under Dr. Cobb.

Alexandria, VA

September 2015 – June 2016

### Georgetown AVRIC Lab

Original Researcher

- Summer of 2015: Investigated the effect of folic acid on Treg cell induction in vitro as a possible natural treatment for autoimmune disease.
- Conducting original research sponsored by Dr. Bellanti under Georgetown's department of Microbiology and Immunology.
- Summer of 2014: Interned in Dr. Joseph Bellanti's lab investigating the development and clinical application of interferon gamma release assays (IGRAs) on Tuberculosis.

Georgetown, DC

Summer 2015, 2014

## SKILLS/PROJECTS

- Python, C, C++, Java, Verilog, MATLAB, Simulink, Cadence & Spectre circuit simulation, Altium
- Flow cytometry, qPCR, western/southern blotting, polyacrylamide & PAGE gels, electrophysiology
- Stanford Student Space Initiative, biology team 2017-2018. Worked on a device that will synthesize DNA in space. Design involves PCB design, microfluidics, and enzymatic DNA synthesis with TDT
- Built MaTricks, an interactive linear algebra calculator iOS app for Stanford Treehacks 2017
- Built EnigmaMachine, a baremetal C program written on a pi A+ to emulate the WWII machine.
- Stanford Club Brazilian Jiu Jitsu President

## LINKS

- Personal site: [tkaosowa.us](http://tkaosowa.us)
- LinkedIn: [linkedin.com/in/tai-kao-sowa-967382120/](https://www.linkedin.com/in/tai-kao-sowa-967382120/)