

Ikeharahi99@gmail.com
https://github.com/tikehara99
(808) 265-5928

Tyler James Haina Ikehara

Research interests include Digital Communications, Electromagnetics, RF Circuits. Passionate about learning and teaching others about STEM related topics.

Education

Doctor of Philosophy: Electrical Engineering

Graduation Year: 2027

Future Leader Fellow | Advisor: Dr. Thomas Marzetta

New York University Tandon School of Engineering – Brooklyn, NY

Relevant Classwork: Linear Systems Approach to Wave Propagation, Probability and Stochastic Processes, Applied Matrix Theory

GPA: 3.778

Bachelor of Science: Electrical Engineering, Minor – Music

September 2018 to June 2022

Summa Cum Laude | *Electrical and Computer Engineering Academic Excellence Award*

Santa Clara University – Santa Clara, CA

Relevant Classwork: Microwave Circuit Analysis, Intro to Communication Systems, Electromagnetics I&II, Linear Algebra, Probability and Statistics, Multivariable Calculus

GPA: 3.976

Research Experience

Research Intern

June 2021 to August 2021

Naval Information Warfare Center Pacific – San Diego, CA

Worked alongside research professors to investigate the effectiveness of Direct Antenna Modulation and Cryocooled circuit components for High Frequency antenna systems

Senior Design Project | Advisor: Dr. Kurt Schab

August 2021 to June 2022

Santa Clara University – Santa Clara, CA

Constructed a Radio Telescope using a Software Defined Radio as the main data processing component

Designed a Microstrip Bandpass Filter for the Radio Astronomy frequency band of 1420 MHz

Guided Research | Advisor: Dr. Kurt Schab

July 2020 to August 2021

Santa Clara University – Santa Clara, CA

Researched Software Defined Radios and gained experience using GNU Radio

Implemented a MATLAB script to compare the Signal to Noise Ratio for antennas with varying efficiency and Q-factor

Work Experience

Peer Educator

March 2022 to June 2022

Santa Clara University – Santa Clara, CA

Assisted with the Lab section of a Digital Signal Processing class. Answered questions that the students had and ensured that their MATLAB codes were completed correctly

Student Tutor

September 2019 to March 2020

Santa Clara University – Santa Clara, CA

Math Learning Center Peer Tutor – Student Tutoring Program for math at SCU. Ran weekly study groups for students and held private tutoring sessions

Skills

Programming: C/MATLAB/SCPI/SPICE/GNU Radio/Python/LaTeX

Hardware: Microwave Antenna Equipment, Arduino, Soldering, Software Defined Radio

Awards/Achievements

SCU Electrical and Computer Engineering Academic Excellence Award

June 2022

Senior Design Best in Session Presentation

June 2022

Tau Beta Pi – California Charter Inductee

November 2020

SCU Dean's List

2018-2021 School Years

Volunteer Work

Trained SCU mentor for the Mentor Collective Program

Assisted Santa Clara University's Math department by interviewing applicant professors.

Volunteer at Sacred Heart Community Service Food Pantry

Punahou Carnival – Food Supply Booth Chair - Managed students and volunteers to keep food booths supplied. The Punahou Carnival is a 2-day scholarship fundraising event that grosses over \$2 million dollars annually.