

Frank Lee

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Education

University of California Santa Barbara (UCSB)

Santa Barbara, CA

B.S. IN COMPUTER SCIENCE AND PHYSICS

Sept. 2016 - Exp. Jun. 2020

- GPA: 3.84, College of Letters & Science Honours Program
- Dean's Honours in College of Letters & Science and College of Engineering

Experience

Continental AG: High Flash LiDAR (HFL) Team

Carpinteria, CA

OPTICS INTERN AND LASER CHARACTERIZATION ENGINEER

Jun. 2018 - Oct. 2018

- Researched lasing and the optomechanics behind diode pumped Nd:YAG lasers in LiDAR technology and responsible for improving internal diffuser and coupling optics and lead 808 nm diode COD investigations
- Independently engineered and implemented investigations on laser imaging, TEM modes, divergences, polarisations, TEC heating mechanisms, transmission spectra and in-house testing of various InGaAs/Ink optical coatings
- Developed and authored weekly presentations/reports on progress for team meetings & relevant vendors/customers

Apple Inc.

Santa Barbara, CA

TECHNICAL SPECIALIST

Nov. 2017 - Apr. 2018

- Provided technical support (hardware & software) for Mac, iPhones and various Apple products
- ATLAS certified, and responsible for assisting customers, addressing questions and performing transactions

UCSB High Energy Physics

Goleta, CA

UNDERGRADUATE RESEARCHER

Oct. 2017 - Jun. 2018

- Developed and debugged GEANT software for light dark matter experiment (LDMX) under Professor Incandela
- Researched under CERN and SLAC's "two electron studies" and developed electron overlap algorithms for silicon based sensors in C++, Python and ROOT

Residential Housing Association (RHA)

Goleta, CA

ADMINISTRATIVE VICE PRESIDENT

Oct. 2016-Jun. 2017

- RHA second in command, responsible for hall council organisation and correspondences
- Co-president proxy and in command of hall budgets and relations with other resident halls

Projects

Sound recognition and high frequency converter

Goleta, CA

PERSONAL RESEARCH WITHIN THE COLLEGE OF CREATIVE STUDIES (CCS) DEPARTMENT, WRITTEN IN PYTHON

January, 2018

- Used Raspberry Pi's ADC alongside an Arduino to produce audible sound when certain high frequency sounds are nearby
- Wrote and developed signal analysis Python libraries for Fourier analysing sounds, constructing Fourier profiles and employing machine learning techniques to match and recognise sounds

Skills & Achievements

Programming C++, Python, MIPS, LaTeX

General Computation Linux (Ubuntu), MatLab, Mathematica, BeamGage, GitHub

Languages English (Native), Mandarin Chinese (Proficient), Bahasa Indonesia (Intermediate)

Achievements Scored 42/45 International Baccalaureate Points (placed top 2% worldwide)