James Choi

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EDUCATION

University of California, Santa Barbara (UCSB)

Bachelor of Science in Electrical Engineering

Technology Management Certificate

September 2014 - March 2018

March 2017

Coursework

- <u>EE</u>: Signal Analysis, Solid State, EM Fields & Waves, Circuits, Devices, Systems, Logic Design, <u>Materials</u>: Structure & Properties, <u>TMP</u>: Entrepreneurship, <u>C++</u>: Advanced Problem Solving, <u>MATLAB</u>: Programming for Engineers, Physics: Mechanics, EM, Quantum, Special Relativity

HONORS

University of California, Santa Barbara

Dean's List, Harold Frank Scholar, Engineering Honors Program, Engineering Writing Award

SKILLS

Hardware: ANSYS(HFSS, Designer), ADS, Altium, Packaging Design, Probing, Soldering(Iron, Convection,

Infrared), VNA, Oscilloscope, 3D Printing

Software: MATLAB, C++, JavaScript, HTML, Ruby on Rails

EXPERIENCE

Undergraduate Researcher, Experimental Cosmology Group

March 2016 – Present

- Starshot Project led by Professor Lubin is supported by NASA, Stephen Hawking, and Mark Zuckerberg
- Designing and learning about satellites and propulsion systems
- Planning on doing more research in rockets and photonics using various CAD tools and 3D printing

Signal Integrity Intern, MACOM

June 2016 – September 2016

- Overlooked the entire engineering process in R&D, application, validation, and customer relation
- Conducted a research and performed precise probe measurements to set industry guidelines for calculating bond wire inductance (Probe Measurements, S-Parameters, ANSYS)
- Completed 4 different layouts on HFSS to analyze different transmission line topologies for a new 12G crosspoint switch board
- Analyzed several coupon boards taking connector and probe measurements in order to ensure the manufacturing integrity over time (ANSYS & TDR, IR, RL, Delay)
- Performed thru hole and surface mount soldering on several boards (PCB & Micron Level)
- Delivered multiple presentations to peers and also to the CEO and management team at HQ

Software QA, Trelp Santa Barbara, CA

September 2015 – December 2015

- Helped with the website for the new mobile application, Trelp, which provides truck drivers with rest spots
- Demonstrated leadership by successfully carrying out the business plan

Personal Venture, AlziCam Santa Barbara, CA

November 2015 – January 2015

- Led a team to finish a feasible business proposal, AlziCam, which helps Alzheimer's patients
 - Wearable camera that records and shares videos with patients and caretakers

EXTRACURRICULARS

Computer Manager, IEEE Largest Technical Professional Organization

September 2014 – Present

- Actively maintaining and fixing the computers and lab equipment in addition to helping members and lower classmen with their projects

Alpha Kappa Psi Professional Business Fraternity

September 2015 – Present

- Responsible for revamping and adding functions to the website using *Ruby on Rails*

Vice President, Techonits Sunnyvale, CA

September 2011 – January 2014

- Co-founded a CA non-profit organization that brings benefits of technology to senior citizens
- The organization is officially registered with the *President's Volunteer Service Award* for completion of 500+ hours of service