

Amar Mohan Kaul

U.S. Citizen

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Portfolio: www.amarkaul.net

Education/Awards

M.Eng., Mechanical Engineering, Aerospace Concentration

Expected graduation: **May 2022**

University of California, Berkeley

B.S., Mechanical Engineering

January 2020

Boston University College of Engineering

GPA 3.50/4.00

Dean's List (x6)

2015, 2016, 2017, 2019

Phi Theta Kappa Honor Society

2016

Alpha Gamma Sigma Honor Society

2015

Work Experience

Hewlett-Packard, Singapore, Product Design & Development Engineer

October 2020 - Present

- Joined as part of New Product Innovation & Development team under Imaging & Printing, with focus on large format HP printer design and manufacturing. Detail on print head design
- Contributed to redesign and manufacturing improvements to replace internal component of large format print head from ceramic to plastic, thus saving ~\$4/unit and upwards of \$1M annually
- Joined sustainability initiative Recycled Content Plastics team with goal to produce consumer products with 50% recycled plastics by 2025. Project utilizes HP take-back program, ocean plastics, etc. as sources of plastic procurement

BW Offshore, Oslo/Singapore, Mechanical Engineer Intern

June 2019 - August 2019

- Interned for Oil & Gas company as part of award-winning BWO Global Summer Internship Program
- Conducted design analysis using Autodesk Inventor/Navisworks on Torque Transfer System for turret moored Floating Production Storage & Offloading vessel. Reported design flaws to head of turret & mooring team
- Drafted Project Execution Plan for spread moored FPSO with specification on Riser & Mooring Systems
- Spearheaded a team of 3 colleagues to develop a theoretical green powered FPSO and ultimately reported our clean energy findings to 20 managers and executives

Chemistry Tutor, Santa Monica College

February 2017 - June 2017

- Tutored and guided several students on the fundamentals of chemistry, ensuring a solid foundational understanding

Singapore Police Force, Assistant Navigation Officer

February 2013 - Dec 2014

- Enlisted two years in the Singaporean National Service in the Armed Forces/Police Force as an officer candidate achieving 90th Percentile in basic training.
- Prevented, deterred and detected crime during sea patrols in Singapore Territorial Waters with Police Coast Guard
- Supervised and trained ten men in a fifteen-man crew to ensure completion of duties. Work including radar and map charting, radio communications, engine troubleshooting, prevention of illegal immigrants and drug smuggling

Technical Experience

Capstone Project - Mechanical Bioreactor, Team Lead

January 2019 - May 2019

- Designed and constructed a mechanical bioreactor for uniaxial compression tests on articular cartilage samples for biomedical research. Utilized SolidWorks and PTC Creo for design and assembly of various structural components
- Wired and coded Arduino with a stepper motor to run fully sterile tests of various strain functions on samples
- Prototyped using machine tools such as 3D printer, CNC milled PTFE and stainless steel parts, laser cut acrylic sheets
- Facilitated weekly meetings with 4 colleagues to update client on progress and ensure on time completion of project

Autonomous Machine Learning Robot, Team Lead

February 2019 - May 2019

- Built, configured, and tested a fully functioning autonomous robot to track and follow a colored track on floor
- Utilized fundamentals of ROS to develop code in Python
- Integrated the code with a camera equipped robot that successfully captured and transferred RGB image pixel data, adjusted velocity of wheels, and tracked the colored line

Leadership and Activities

BU Singapore Students Association, Communications Officer and Treasurer

2018 - 2019

BU UAV Team

2019

STEM Club, Treasurer

2016 - 2017

Varsity Track & Field, Sprint Team Captain

2012

Skills

Autodesk Inventor, PTC Creo, SolidWorks, OnShape, nTopology, MATLAB, 3D Printing, Additive Manufacturing, Machine Shop Manufacturing, Open-source Microelectronics (Arduino/Raspberry Pi), Navisworks, Linux, Python (ROS), MATLAB, C Programming, Microsoft Office, Music Proficiency, Basic Level Hindi & Mandarin