

Jamie Jacobson



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Summary

I am a Master's Engineering Student at the University of Cape Town, South Africa. Currently seeking Internships in Aerospace Technology.

Thesis Topic: SHARCBUOY - Development of a low-cost multi-sensing system for Ice Drift in the Southern Ocean

I graduated from Herzlia Highschool in 2014 and Started a BSc Engineering in Mechatronics in 2015. This 4-year program runs through the Electrical Department and focuses heavily on circuit design, embedded system programming, control systems and digital/analogue circuits and systems. In addition, we learn techniques for designing systems and engaging with clients.

I also work voluntarily as an active Lifeguard with 10 years of on-duty experience. For 2 years I worked as a Squad leader at Clifton Surf Lifesaving Club and for 1 year as a Vice squad Leader at Fishhoek Surf Lifesaving Club. Lifesaving is how I learnt how to engage with the community. It gave me a sense of responsibility and showed me how I can give back to my community. My passion for lifesaving extends to the water where I not only patrol the beaches but participate in the sport. I enjoy surfing or ocean kayaking and enjoy participating in Endurance races. I am fascinated by ocean dynamics and hope to understand this through my Masters Thesis.

I am forward-thinking, analytical and will always approach a task with enthusiasm and passion. Even if a task is unfamiliar I can learn fast and can apply critical decision making to any situation to get it done right. My current research focuses on designing and building a remote sensing platform for Deployment in the Arctic Ocean.

Github Available On Request.

Experience



Researcher

SCALE Winter Cruise

Jul 2019 - Aug 2019 (2 months)

In July, I travelled to The Southern Ocean in Antarctica as part of the Southern Ocean Seasonal Experiment (SCALE) research expedition. The research team comprised of 100 Scientists and Engineers from 22 Countries split into 17 focuses around the world. I joined as part of the Sea Ice Team. During the expedition, My research involved testing the First Prototype of the SHARC BUOY sensor platform in the harsh cold conditions to understand how it responds in this climate. This involved a short deployment on an Ice Floe and remote monitoring.

As an Electrical Engineer, I was tasked with setting up the Data logging systems, Thermal Cameras and infrared Thermometers and additional sensors. as well as providing support for the other Sea Ice Activities such as Cutting and coring of Ice Floes, Storing Cores and samples as well as Waves in Ice in Situ measurements



Intern

Skeg Product Development

Jan 2018 - Feb 2018 (2 months)

I did a Summer Internship at SKEG. A product development company in Cape Town, South Africa. I worked for 3 weeks and I would perform tasks for various projects. These were related to the products being developed or relating to the company itself. Some of the work involved Database creation and app development, System design and component procurement. sensor testing, embedded systems programming and quantitative/qualitative decision making.

Education



University of Cape Town

Master's degree, Mechatronics, Robotics, and Automation Engineering

2019 - 2020

Currently Undertaking a full-research Masters Degree. Research focuses on designing and building a fully autonomous measurement platform for measuring Ice Drift data and Wave in Ice data for Ice Floes in the Southern Ocean. Research forms part of a larger International collaboration for Antarctic science and allowed me to join a scientific expedition in July 2019 to the Southern Ocean.

This degree has an expected completion time of 1.5 years - 3 years. I am expecting to submit in Summer 2020



University of Cape Town

Undergraduate, Mechatronics, Robotics, and Automation Engineering

2015 - 2018

Started a BSc. Engineering in mechatronics engineering at the University of Cape Town. This is a four-year course run through the University's Electrical Department in the Engineering and Built Environment Faculty. The final year requires submission of a short thesis. I wrote mine on Global path planning and Trajectory Generation of an Unmanned Surface Vehicle. I graduated in 2019 with Honors and achieved an overall aggregate of 66.61%

Licenses & Certifications



CPUT Certificate of Training - Cape Peninsula University of Technology

CPUT



Lifeguard - Lifesaving South Africa

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Skills

Programming • Engineering System Design • Circuit Design • Public Speaking • Power • LaTeX • MATLAB • Microwave Engineering • Signal Processing • Solidworks