

# Marcus Wan | Product Manager

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As a product manager, I bring a unique blend of engineering and product design expertise along with startup experience to navigate product development challenges and capitalize on market opportunities. My experience in a Silicon Valley startup and my academic pursuits in China allow me to provide a global perspective to the team. I am seeking a role that fosters growth and allows me to shape innovative products.

## Experience

**Product Manager** — *Tyfast, California, USA*

MAY 2023 – FEB 2024

- Developed a comprehensive understanding of the battery market and various battery technologies, utilizing this to craft a product vision and go-to-market strategy for a new line of product.
- Conducted customer outreach to identify needs and translated these needs into actionable development goals for the technical team, balancing the technical feasibility, trade-offs, and timeline required.

**Associate (Investment Team Lead)** — *Protégé Ventures, Singapore*

OCT 2020 – JAN 2023

- Scouted and reached out to hundreds of promising start-ups and conducted preliminary assessments of how viable it is to invest in them.
- Led a team of eight in evaluating and conducting due diligence on potential investments.
- Represented the company to network with people in the Start-up and Venture Capital industry.

**Founder** — *Crafter's Bench, Singapore*

SEPT 2021 - JAN 2022

- Founded a start-up focused on providing an avenue for digitalization and monetization for members of the handicraft community.
- Worked with a team to conduct market analysis and develop a Minimum Viable Product for market testing.

**Robotics Automation Intern** — *Defence Science Organisation, Singapore*

MAY 2021 - SEPT 2021

- Devised and programmed a path planning algorithm for an Autonomous Unmanned Surface Vehicle to meet the constraints of the military.
- Integrated the algorithm into a Unity simulation to verify its performance.
- Presented the results to a panel of Senior Engineers including the department head.

**Intern (Operations - Manufacturing)** — *ResMed, Singapore*

MAY 2020 - SEPT 2020

- Worked with a team to implement and finetune a new internal logistics system, utilizing concepts such as Lean Six Sigma to reduce manufacturing waste.
- Proposed potential redesigns of an existing production line to allow production of multiple products. Created digital mock-ups using AutoCAD and presented them to senior engineers.
- Automated the recording of data for the production crew using Excel VBA, thus minimizing paperwork and increasing production efficiency.

## Languages & Technical Skills

Skills: Critical Thinking, Communication, Business Acumen, Product Management, Leadership, Teamwork, Planning, Data Analysis, Problem Solving, User-Centric Design, Agile, Lean Six Sigma

Technical Skills: Hardware Design and Simulation (Solidworks, AutoCAD, Fusion360, Comsol Multiphysics, MATLAB, Power Circuit Design, PCB Design), Fabrication (3D printing, laser cutting, waterjet cutting, CNC lathing), Programming and Software Design (Arduino, Python, C++, C#, Unity, Figma), Excel (VBA)

Languages: English and Mandarin Chinese (written and spoken)

Activities Highlights: SUTD Organisation of Autonomous Robotics (May 2019 - Jun 2020); Singapore Autonomous Underwater Vehicle Challenge (SAUVC) Team (Oct 2019 - Jun 2020)

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## Project Highlights

For additional projects please check out my [technical portfolio](#) on my website in the header.

**Hardware Designer and Project Integrator, *Autonomous Outdoor Cleaning Robot*** — Capstone, SUTD  
DEC 2021 - SEPT 2022

- Worked in a team of seven using an agile framework to design and fabricate an autonomous outdoor cleaning robot, taking into account the needs of an external industry partner.
- Designed and fabricated the mechanical cleaning system, using design software such as Fusion360 and fabrication techniques such as 3D printing, waterjet cutting and CNC lathing.
- Designed and fabricated the electrical system of the robot, using software such as Multisim for circuit simulation and PCB design.
- Programmed the software for the embedded systems and integrated it with the autonomy software via ROS (Robot Operating System)

**Project Lead, *Wearable Activity Tracker with Muscle Stimulation Function*** — Engineering Design Innovation, SUTD  
JAN 2021 - MAY 2021

- Worked in a team of five to design and fabricate an innovative wearable leg sleeve capable of tracking and triggering muscle activity.
- Integrated Electromyography sensors (to detect muscle activity) and Functional Electrical Stimulation (to trigger muscle activity) into the device, writing a custom program to ensure the signals do not interfere.
- Designed, fabricated, and tested custom reusable electrodes, integrating them into the product.

**Electrical System Designer, Finance Manager, *Singapore Autonomous Underwater Vehicle Challenge (SAUVC) Team*** — SUTD Robotics Club  
OCT 2019 - JUN 2020

- Participated in an international competition to design and build an autonomous underwater vehicle which can complete various tasks autonomously.
- Worked in a team to design and build the electrical system of the vehicle.
- Procured, managed, and distributed funding for the team.

## Education

### **Zhejiang University**

*Entrepreneurship Management*

Coursework: Technology and Innovation Strategies, Data Analysis, Data Mining, Social Media Marketing

**Zhejiang, China**

AUG 2023 - JAN 2024

### **University of California, Berkeley Extension**

*Professional Certificate in Entrepreneurship*

Coursework: Business Negotiation, Design Thinking, Marketing Research, Finance for Entrepreneurs

**Berkeley, CA**

JAN 2023 - MAY 2023

### **Singapore University of Technology and Design (SUTD)**

*Master of Science in Technology Entrepreneurship*

*Dissertation: Implementation and Evaluation of the Performance of Computer-Vision based SLAM Algorithm and its Potential Effects in the Entrepreneurship Scene*

**Singapore**

JAN 2023 - MAY 2024

*Bachelor of Engineering Majoring in Engineering Product Development*

*Minor in Design, Technology and Society*

MAY 2019 - AUG 2022

SUTD's Honors List in Freshmore, Sophomore, Junior, and Senior years, with a GPA of 4.91/5 (Graduated with Honours with Highest Distinction)

Relevant Coursework: Intelligent Robotics, Advanced Feedback and Control, Design and Fabrication of MEMS, Power Electronics, Machine Element Design, Fluid Mechanics, Engineering Design Innovation