Daniel Foong Wee Keong

Email: danielfoongweekeong@gmail.com Mobile: +65 94898065
Portfolio website: https://dankidon.github.io/index
Linkedin: https://www.linkedin.com/in/daniel-foong-wee-keong/

EDUCATION

National University of Singapore **Aug 2019 – Jul 2023**

- Bachelor of Engineering in Mechanical Engineering, Honours (Robotics)
- 2nd Major in Innovation and Design
- Cap: 4.19/5.00
- Relevant modules:

Technical University of Munich [NUS Overseas College (NOC) program] **Apr 2022 – Aug 2022**

- Cap: 1.0/1.0

RELEVANT WORK EXPERIENCE

ACE6 Technology, Mechanical R&D Engineer **Dec 2023 – Present**

- Created custom applications in C# and XML to generate performance based lattice objects for customers
- Designed and prototyped 3D printed bicycle, orthopedic and medical parts for testing using SLA, SLS and FDM
- Implemented 2D pressure maps to modulate thickness of lattice structures to improve weight and performance

Hyperganic Group, Algorithmic Engineer Intern **Jan 2022 – July 2022**

- Created custom applications in C# and XML to generate performance based lattice objects for customers
- Designed and prototyped 3D printed bicycle, orthopedic and medical parts for testing using SLA, SLS and FDM
- Implemented 2D pressure maps to modulate thickness of lattice structures to improve weight and performance

Project UGo Project Leader, Mechanical Engineer **Oct 2021 – Aug 2022**

- Initiated a project to automate and enable the returning of reusable packaging in NUS to reduce packaging waste in canteens to 0%
- Deployed an AI container detection model using Tensorflow lite and OpenCV on the raspberry pi (Mobilenet)
- Lead a cross-functional team of 9 to develop a reusable container returns system
- Developed a reverse vending machine using CNC, sheet metal 316L, reducing the price by 70%

Factorem, Manufacturing Engineer Intern **May 2021 – Sept 2021**

- Performed design for manufacturing checks on 380 parts (CNC, 3DP, laser cutting)
- Developed QA/QC process and QA/QC test parts for CNC and 3D printing to onboard clients onto the platform
- Initiated the partner management system to improve relationships and allocation of work to partners from clients using excel and python

Autodesk Fusion 360 Student Catalyst (NUS) **Feb 2021 – Feb 2022**

- Taught 300+ students across 4 different workshops for a wide range of topics across 45 hours (Design for manufacturing, Fusion 360 full course, 3D printing for biomedical applications, 3D printing crash course)
- Planned and managed various key stakeholders to ensure completion of workshops

PROJECTS

Project eFeeder **Jan 2021 – May 2023**

- Partnered with AWWA and CPAS to develop a robotic feeding arm for persons with upper body disabilities
- Identified and resolved key concerns from stakeholders, resulting in an 80% customer satisfaction.
- Prototyped a silicon mold for a soft captive touch button to reduce strength needed in activating the button

ADDITIONAL INFORMATION

- **Design programs:** Solidworks (Associate), Autodesk Fusion 360, Solid Edge (Associate), rhino3d, blender
- **3D printing software:** Cura, PrusaSlicer, OrcaSlicer, Lychee, Chitubox
- **Programming languages:** Python, HTML, C++, C#, XML, ROS