RISHI KUMAR SRINIVASAN

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RESUME PROFILE

Recent Graduate from NUS trained in Aeronautical Engineering, Innovation, Business Development, Product Development, Entrepreneurship and Systems Thinking. My wide scope in undergraduate focused on how a product and customer experience can be sculpted to ultimately solve a problem. *Open to relocation*

EDUCATION

National University of Singapore, 2018 - 2022

BEng (Honours) in **Mechanical Engineering (Aeronautical)**
2nd Major in **Innovation and Design Program**

Notable Programs:
UTown College Program in **Systems Thinking and System Dynamics**
NUS Overseas College (Toronto)

University of Toronto, 2021

Courses in Entrepreneurship and Product Management
Part of NOC Toronto

Tel Aviv University, 2019

TAU Summer Research Program in the Sciences

LEADERSHIP AND ACHIEVEMENTS

NUS Venture Initiation Programme Grant Winner - $10k
- CEO and co-founder of Siege, a booking platform for underutilised space
- Team and I won the initial grant from NUS Enterprise for $10k

Vice-President (Internal)
RC4Space (Residential College Makerspace) | June 2019 – June 2020

- Organised and held courses to further the maker movement within RC4
- Procured and set up the first Makerspace for a residential college in NUS
- Implemented a project framework to streamline approval and development of student led maker projects in the college

EXPERIENCE

Business Development and Engineering Intern
Skygauge Robotics | January 2021 – December 2021

Business Development
- Conducted **Primary Market Research** with multiple stakeholders across the vertical of industry and **analysed proposed business model** with primary and secondary data to advise executive team on direction forward
- Managed **technical considerations** from customers to **advise on engineering** decisions and direction
- Studied a novel **use case** for the product through primary research and developed a **go-to-market** and **development strategy** for this application

SKILLSET

PROFICIENT

CAD: Solidworks, Inventor, Fusion 360
Rapid Prototyping: 3D printing, Laser cutting, CNC milling
FEA: Solidworks
CFD: ANSYS
Aero tools: XFLR5, Javafoil

INTERMEDIATE

FEA: ANSYS
CFD: Solidworks
Development boards: Arduino, Raspberry Pi
Flight Control Boards: Ardupilot Pixhawk
Languages: Python (Robotics), MATLAB

BASIC

Project management: JIRA
Database: SQL
Languages: Python (Data Analysis), C++

Engineering

- Utilised MATLAB and Python for **automating flight log analysis** and developed methods for additional variables to aid engineering team using existing datapoints
- Designed and developed **components** (drone-wall interface) and **software tools** (signal processing) for next iteration of drone **incorporating insights** from earlier Primary research with stakeholders
- Conceptualised and conducted an **end-to-end test plan** (thrust stand test of single/coaxial motors) utilising third party test equipment and **developed internal data processing tool** customised for engineering team

Engineering Intern
Skytrek Pte Ltd | May 2020 – September 2020

- Designed and engineered the first conceptual **tiltrotor Unmanned Aerial Vehicle** to be produced by the startup for **Shore to Ship** deliveries
- Analysed the use case for the proprietary technology using **engineering innovation methodologies** and advised on direction of development

Autonomous Vehicle Intern
Nutonomy (now Motional) | March 2018 – August 2018

- Developed and implemented a **companywide work tracking tool** using JIRA that seamlessly integrated the car conversion process between various teams which automated the process and accelerated work
- Integrated **Quality Management procedures** into the car conversion process
- Obtained insights into **SCRUM based project management** which I subsequently weaved into the work tracking tool for better planning

PROJECTS

Electric Manned Aircraft
Team Lead

- Analysed and identified a market for an electric aircraft
- Conceptualised and developed a market oriented Electric Fixed Wing aircraft
- Fabricated a scaled flying prototype

University Rover Challenge
Mech Team co-lead

- Liaised with Science team to develop the Science Assembly for the rover
- Conducted a FEA for the whole rover frame
- Assisted in planning the Mech Team's development

Study of Polymer Heat Exchangers
Research Assistant for Dr Abraham Kribus at Tel Aviv University

- Conducted a study into the suitability of Polymers for use in Steam Heat Exchangers in thermo-electric power plants
- Designed a low-pressure manifold for polymer samples to test suitability for environment

Public Transit in Singapore
System Dynamics Study into Public Transport Usage in Singapore

- Identified a systemic problem in Singapore on falling Public Transport usage in the city
- Developed a System Dynamics model to understand commute patterns and commuter preferences and isolated causes
- Hypothesized and evaluated multiple policy suggestions using a Cause and Flow diagram and made recommendations based on effectiveness of policy