

# Rishi Kumar Srinivasan

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## Education

**University of California at Berkeley**  
MEng (Civil and Environmental Engineering)  
**Transportation Engineering** Concentration

Berkeley, CA  
Aug 2024 – May 2025

**National University of Singapore**  
BEng (Mechanical Engineering) with Honours (Merit)  
2<sup>nd</sup> Major in **Innovation** and **Design** Program  
**Aeronautical Engineering** Specialisation  
NUS Overseas College Toronto (*Entrepreneurial Studies*)

Singapore, Singapore  
Aug 2018 – Jun 2022

## Projects

**Neural Network Control of eVTOLs using high-fidelity simulation model**  
*Ongoing*

Berkeley, CA  
Aug 2024 - *current*

- Integrated NASA's benchmark simulator for Lift + Cruise aircraft, Generic Urban Air Mobility (GUAM), a MATLAB Simulink based model, to create a Gymnasium environment for training a Reinforcement Learning Model on a Proximal Policy Optimization algorithm for control
- Current work:* Implementation of Safety Guarantees through Stability Margins

**Multimodal Regional Scale Traffic Simulation: Regional Airports as Vertiports**  
*Ongoing*

Berkeley, CA  
Aug 2024 - *current*

- Contributed to a project utilizing LPSim (Regional Microscopic Transportation Simulator) in evaluating the effectiveness of integrating eVTOLs / Advanced Air Mobility into existing ground transportation in the SF Bay Area
- Identified connections between regional airports that reduce travel time by 58min for 31300 trips
- Current work:* Expanding on the travel time savings to identify commercial viability of routes using FAA/DOT Cost benefit Analysis

**Design of UC Air Mobility: eVTOL Network Systems Design**  
*Ongoing*

Berkeley, CA  
Aug 2024 – *current*

- Developed trajectory evaluation tool for eVTOLs to be integrated with a network-wide discrete event driven simulator
- Uses high-fidelity aero-propulsive simulation to generate and evaluate flight trajectories for conformance, energy consumption, failure modes and wind perturbations

**Transformable Vertiport Topologies for Urban Air Mobility**  
*Ongoing*

Berkeley, CA  
Aug 2024 – *current*

**Electric Aircraft for Healthcare Logistics**  
**Team Lead**

Singapore, Singapore  
Jan 2020 – Jan 2021

- Using Design Thinking methodology, researched and identified value proposition of addressing missing connections in healthcare logistics for Indonesia (and similar geographies).
- Proposed Design Requirements of 107kn cruise speed, 100kg payload and 600m Take Off Distance for a manned electric fixed-wing aircraft.
- Designed a wing structure through XFOIL and CFD simulations to meet our design requirements. Subsequently designed and fabricated a 1/5 scale prototype of aircraft for flight tests

# Rishi Kumar Srinivasan

## Proposed blockchain-based vehicle agnostic UTM for urban operations

Singapore, Singapore  
Jan 2022 – May 2022

- Derived a novel, blockchain-based solution for verification and permissioning of a operator/manufacture agnostic UTMS capable of inter-operability across infrastructure managers, targeting TCL 4 of NASA's UTM classification
- Utilising open-source Hyperledger Iroha as the blockchain platform, developed decentralized, node-based solution for authorisation of vehicles and verification of control algorithm with no additional hardware requirements
- Proposed implementable solution for airspace management in high-density, urban environments

## Professional Experience

### Heron Technology Systems Engineer

Singapore, Singapore  
Apr 2024 – Jul 2024

- Developed and deployed a comprehensive multicopter command and control development kit, enabling rapid prototyping and testing of UTM (Unmanned Traffic Management) systems in a startup environment
- Engineered and implemented a containerized deployment package for seamless integration of open-source drone platforms with proprietary systems, enhancing operational efficiency and scalability across diverse UAV (Unmanned Aerial Vehicle) fleets
- Led the technology strategy for compliance with global UAS (Unmanned Aircraft Systems) regulations, including EASA, FAA, and CAAS standards, ensuring our UTM platform's readiness for international market adoption

### Lancia Consult Management Consultant

Singapore, Singapore  
Jul 2022 – Mar 2023

- Account lead across diverse client portfolio including government agencies, energy consultancies, non-profits, and fintech startups and generated ~\$170k revenue from deliverables within 8 months
- Successfully executed end-to-end SME digital transformation project for a SME.
- Developed materials for companywide usage to guide Agile Project Delivery using SCRUM frameworks

### Skygauge Robotics (*Forbes 30 under 30 startup*)

Toronto, Canada  
Jan 2021 – Dec 2021

#### Mechanical Engineering Intern

- 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

### Nutonomy (*now Motional*) Autonomous Vehicle Intern

Singapore, Singapore  
Mar 2018 – Aug 2018

- Developed and implemented a company wide 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

## Awards

### CITRIS Aviation Prize 2025: Phase 1 winner for UC Berkeley

Berkeley, CA  
May 2025

### NUS Enterprise Venture Initiation Program Grant Winner- \$10k

Singapore, Singapore  
May 2023

## Skills

Python (Robotics, Data Analytics,  
Tensorflow, OpenCV, PyTorch)  
C++ (embedded systems)  
Solidworks (CAD and FEA)

Autopilot Projects (ArduPilot,  
Pixhawk)  
ROS  
MATLAB

Agile Project Management  
XFoil/XFLR  
Kotlin (OpenCV libraries)