

VISHESH KUMAR

MECHANICAL ENGINEER

Melbourne, VIC | visheshkumar.vik@gmail.com | [Linkedin](#)

SKILLS

- **Project Management & Business Strategy** | Project Management, Planning, Risk Management, Finance, Operations
- **AI & Prompt Engineering** | AI for Business, Prompt Engineering, ChatGPT skills
- **Programming & Data Analytics** | Python, C++, R programming, Six Sigma, Data Analysis, Statistical Testing, Data Visualisation, Spreadsheets
- **Engineering Design & Simulation** | SolidWorks, ANSYS Fluent, OpenRocket, XFLR5, ARENA, Spaceclaim
- **Prototyping & Hardware Integration** | Electronics, 3D Printing, Soldering, Prototyping
- **Business Software Proficiency** | Excel (Solver), Word, Visio, Powerpoint

PROJECTS

RMIT HIVE Rocketry Team

- **SRAD Hybrid Rocket Development**

Aug 2025 - Present

- Collaborating on the design and development of a hybrid rocket motor combining solid fuel with liquid or gaseous oxidizers.
- Gaining exposure to hybrid motor theory, combustion dynamics, thrust modeling, nozzle design, and safe testing procedures.

- **Deployable Nose Cone Project**

Apr 2025 - Jun 2025

- Contributed systems engineering to the design of a deployable nosecone for an L2-class rocket as part of HIVE's rocketry program.
- Carried out servo selection, parachute sizing calculations, and trade studies for material and mechanism design.
- Developed a failure analysis and validation plan to guide future testing and integration.

RMIT UAS Research Team

- **Autonomous UAV Project**

Jul 2025 - Present

- takeoff, landing, roll, pitch, yaw, throttle, and sensor-based motion control using gyroscopes, range sensors, and colour detection.
- Developing custom control systems using keyboard inputs and smart controller logic, integrating conditionals, loops, functions, and timers for semi-autonomous navigation.

- **Quadcopter Project**

Apr 2024 - Oct 2024

- Tasked with assembling a quadcopter from a kit as part of my training, I built a functional quadcopter while learning core UAV systems.
- I assembled avionics, soldered electronic components, and configured flight software. As a result, I developed foundational skills for future UAV design and operational projects.

- **Vertical Take-off (VTOL) Project**

Sep 2023 - Oct 2024

- Developed practical skills in 3d printing by fabricating components and iterating on CAD files inherited from previous teams, performing preliminary design corrections to address measurement errors and adjusting tolerances.
- Gained critical insights into project management, recognising the importance of structured coordination in driving engineering projects forward.

SUMMARY

Highly motivated Aero/Mechanical Engineering student at RMIT. Experienced in collaborative projects involving advanced design, research and technical problem-solving. Passionate about project management driven by my deep technical understandings.

CERTIFICATIONS

Udemy

Solidworks Certification

Arduino Programming

Ansyz Workbench

Python

GOOGLE

Project Management

GOOGLE

Data Analytics

Vanderbilt University

Prompt Engineering

Kennesaw State University

Six Sigma Black Belt

University of Amsterdam

Data Analytics for Lean Six Sigma

University of Pennsylvania

AI For Business

EDUCATION

RMIT UNIVERSITY

Bachelor of Engineering
(Mechanical)

Feb 2023 - Nov 2026

- GPA : 3.2/4.0
- Pursuing coursework with specialization in aerospace engineering, mechatronics and automation.
- Relevant courses: Systems Engineering, Digital Fundamentals, Engineering Design, Innovation Ecosystem & Future of Work, Principles of Aerodynamics, Mechatronics Principles.

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PROFESSIONAL EXPERIENCE

Lab Manager - Leadership Team | RUASRT - RMIT Research Team

Jul 2025 - Present | Melbourne, Victoria

- Managing RUASRT's lab space and technical infrastructure, ensuring a safe working environment while gaining exposure to diverse engineering equipment ranging from CNC milling machines to composites and 3D printers.
- Responsible for coordination and logistics across sub-teams, while ensuring compliance with lab safety protocols.

Engineering & Marketing Intern | Engineering & Scientific International

Jul 2024 | Melbourne, Victoria

- Conducted a comprehensive PESTEL analysis to support informed decision-making for the growth and marketing of the company's patented triple-glazed windows IP, aiming to identify a suitable product-market fit.
- Gained valuable insights into the startup ecosystem and the strategic approaches companies use to achieve product-market fit.

Analyst Intern | Pure Protein

Apr 2024 | Melbourne, Victoria

- Led a detailed market trends analysis within a student team environment, enabling a clear understanding of product positioning compared to competitors.
- As a result of the analysis, recommended to expand the range of flavours by 1.3x to better align with market demand.

COMPETITIONS

Hackathon | RTSA (State Level)

Jul 2025 | Melbourne, Victoria

- I was selected as one of only 28 candidates from Victorian universities for this competition.
- As a result of this hackathon, I developed an innovative freight pod solution in Category B, which is showcased in my portfolio.

OTHER PROFESSIONAL EXPERIENCE

Bartender | Bucatini Restaurant

Jul 2024 - Present | Melbourne, Victoria

- Strong interpersonal and time-management skills developed through customer-facing roles alongside full-time engineering study.

Bartender & Manager | FT Local Kitchen & Bar

Jan 2024 - Jul 2024 | Melbourne, Victoria

- Delivered fast, high-quality service in a high-pressure environment.
- Managed customer interactions with professionalism and adaptability.
- Maintained stock, managed multitasking, and ensured hygiene compliance.
- Built strong teamwork and communication skills across a diverse staff team.

ADDITIONAL INFO

Volunteer Experience

Led educational session for Royal Aeronautical Society, guiding **25 students** through designing and building fixed-wing gliders.

Clubs & Societies

RMIT UAS, Hive, RMIT Motorsports, Indian Club and RMIT Battle Bots.

MY PORTFOLIO



[Link](#)