

Ruchir Ravishankar

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EXPERIENCE

Graduate Student Researcher

Jan. 2022 – Dec. 2024

Gas Turbine Simulation Lab, University of Cincinnati

- Developed a Python-based CFD solver to model turbulent flows and validate performance across benchmark datasets.
- Validated turbulence models using benchmark cases, enhancing reliability for design scenarios.
- Supported lab publications by translating complex results into technical documentation and visualizations.

Research Intern

Jan. 2020 – Mar. 2020

National Aerospace Laboratories, Bangalore, India

- Conducted CFD simulations of airfoils using ANSYS Fluent to analyze aerodynamic behavior in transitional regimes.
- Tuned SST (Shear Stress Transport) model parameters to improve simulation fidelity and predictability.
- Validated results against wind tunnel data and contributed to formal technical documentation.

Graduate Assistant (Impact Innovation)

Jul. 2022 – Dec. 2024

College of Education, Criminal Justice & Human Services, University of Cincinnati

- Processed and tracked hiring of 100+ student workers, identifying process inefficiencies.
- Selected to serve on two university hiring panels for full-time staff, offering analysis-based insights on candidate evaluation and team fit.
- Co-authored a federally funded grant proposal successfully.

Design Team Lead

Jan. 2017 – Jun. 2020

Avions Aerodesign, University Team

- Led a 15-member team in aircraft design and testing, using CAD and CFD tools to optimize performance.
- Achieved a 12% improvement in design parameters through iterative design and aerodynamic tuning.
- Managed cross-functional collaboration, documentation, and technical presentations.

TECHNICAL SKILLS

CAD & Simulation: SolidWorks, ANSYS Fluent, Pointwise (meshing), GD&T (basic)

Programming: Python (NumPy, SciPy, Pandas), MATLAB

ASSOCIATED ACTIVITIES

Club Sports Representative, UC Club Tennis, University of Cincinnati

Sep. 2022 – Dec. 2024

- Liaison to University Oversight Board
- Raised \$1500+ through on-campus fundraiser opportunities.

EDUCATION

Master of Science in Aerospace Engineering

Aug. 2021 – Dec. 2024

University of Cincinnati, Cincinnati, Ohio

- Relevant Coursework: CFD Code Writing, Adv. Numerical Analysis, ML for Engineers, Adv. Heat Transfer, Gas Turbine Combustion

Bachelor of Engineering in Mechanical Engineering

Aug. 2016 – Aug. 2020

Visvesvaraya Technological University, Karnataka, India