Yash Dagade

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Education

Duke University — Durham, NC
B.S. in Mechanical Engineering, Computer Science; Full-ride + $40,000 Merit-based Scholarship — *2024 – 2028*
- Relevant Coursework: Deep Learning, Real Analysis

University of Minnesota, Twin Cities — Minneapolis, MN
Dual Enrolled — 48 Credits — 3.9 GPA — *2022 – 2024*
- Relevant Coursework: Artificial Intelligence I, Machine Learning Fundamentals

Eden Prairie High School — Eden Prairie, MN
60 Credits — 3.9 GPA — *2020 – 2024*

Experience

Researcher at PPP Lab — University of Minnesota
Launched and led the SkyWindFarm project; obtained $30,000 in grants; provisional patent submitted. — *2022 – 2023*

Founder and President of EyeDa — Self-founded
Led a team creating AI solutions for distracted driving; recognized on ABC, NBC, and Star Tribune. — *2021 – 2023*

Research Volunteer at Flow Field Imaging Lab — University of Minnesota
Increased wind turbine efficiency by 1.5%; submitted first author manuscript in top energy journal. — *2023*

Publications & Patents

Patent: Passive Alignment LTA Shell for VAWTs — Provisional Patent
Developed an LTA shell enhancing VAWT cluster efficiency; 25% reduction in AWE system energy costs. — *2023*

Aerodynamic Performance Analysis of a Three-Bladed Vertical Axis Wind Turbine
Lecture Notes in Mechanical Engineering
Accepted for CDPMHM 2024. — *2024*

SkyWindFarm-Harnessing High Altitude Wind Power in a Scalable Way — Renewable Energy
Manuscript submitted: RENE-D-23-06538. — *2023*

Optimizing Wind Turbine Performance in the Presence of Low-Level Jets — Applied Energy
Manuscript submitted: APEN-D-23-03934. — *2023*

Projects

EyeDa Maps — Self-initiated
- Created AI-powered navigation tools to predict safer routes using accident data.
- Demo presented to MN Senator; nominee for Emerging Leaders Award at TZD conference.

Polycythemia Vera Research — Chad L Myers Lab, UMN
- Discovered two new therapeutic genes (RUX1 and CBFB) that could inhibit the Jak2v617f mutation, treating Polycythemia Vera (PV).
- Ongoing collaboration with Dr. Beckmen at UMN to find potential drugs targeting these genes; currently conducting mouse trials.

Honors & Awards

A.B. Duke Scholarship — Duke University
Full-ride merit-based scholarship; 6-week study at Oxford University. — *May 2024*

International Science and Engineering Fair — ISEF Dallas and LA
3rd Place Grand Award in 2023 and 2024; $10,000 Sustainability Special Award. — *May 2023, 2024*

Regeneron Science Talent Search Scholar — Nationwide
Selected from 2,162 applications for exceptional research skills. — *Jan 2024*

National Merit Finalist — Nationwide
Top 0.5% of PSAT performance. — *Dec 2023*