Khush A. Patel

(717) 681-3979 — kpate151@jh.edu — U.S. Citizen
www.khushengineer.com

Education

Johns Hopkins University, Whiting School of Engineering — Baltimore, MD
B.S. in Mechanical Engineering — Anticipated May 2029

Cumberland Valley High School — Mechanicsburg, PA
High School Diploma — June 2025

Honors

- Cumberland Valley Science Hall of Fame (2024–2025)
- William R. Pierce Academic Achievement Award: Physics (2024–2025)
- Lois Wolf Highest GPA Student-Athlete (2024–2025)
- Melissa Huang Memorial Scholarship (2024–2025)

Leadership

- President & Founder, Renewable Energy Club (RENEW) (2024–2025)
- Facilities Chair, Mini-THON; led fundraising team that raised $280,000+ for pediatric cancer (2024–2025)

Experience

Wind Harvester Start-Up Company — Baltimore, MD
Mechanical Lead, Wind Energy Product Development — Jul 2025–Present

- Lead CAD and simulations using SolidWorks, MATLAB, and Ansys Fluent CFD.
- Using fluid data to optimize geometry for peak energy harvesting.
- Work contributed to acceptance into SPARK accelerator program, securing up to $2,500 in funding.

GreenWorks Development — Mechanicsburg, PA
Technical Sales and Project Development Intern — Jan–Aug 2025

- Conducted solar development research and financial modeling using Helioscope.
- Presented findings at Cumberland Valley School Board and Bethany Village Retirement Homes.
- Pitch led to collaboration between two corporate entities for a $5 million project, which I am under contract for.

UPMC Magee-Women's Hospital — Pittsburgh, PA
Research Intern — Jun–Sep 2024

- Contributed anesthesiology research on hypertension, preeclampsia, and OCT technology.
- Conducted data analysis in R: distributions, visualizations, and critical calculations.
- Gained experience in systematic data management and clinical research processes.

Projects

4-DOF Robotic Arm — Independent Project

- Fully designed and programmed a 4-DOF robotic arm using Arduino microcontroller and C++.
- Implemented inverse kinematics and real-time sensor feedback for precision joint control.

Shadowing

PA American Water — Pennsylvania
Civil & Environmental Engineering — Nov 2024

- Observed engineers managing dams and treatment facilities; explored hydraulic modeling, water quality metrics, and clean water delivery systems.