

Khush A. Patel

(717) 681-3979 — kpate151@jh.edu — U.S. Citizen
www.linkedin.com/in/khush-patel072b3731b

Education

Johns Hopkins University, Whiting School of Engineering
B.S. in Mechanical Engineering

Baltimore, MD
Anticipated May 2029

Cumberland Valley High School
High School Diploma

Mechanicsburg, PA
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
Jul 2025–Present

Mechanical Lead, Wind Energy Product Development

- 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
Jan–Aug 2025

Technical Sales and Project Development Intern

- 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
Jun–Sep 2024

Research Intern

- 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
Nov 2024

Civil & Environmental Engineering

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