

Atulya Mohan

mohan.atulya26@gmail.com | +1 (848)-264-1381 | atulyamohan.com | linkedin.com/in/atulya-mohan

Education

Carnegie Mellon University – MS in Engineering & Technology Innovation Management Jan 2025 – Dec 2025

Coursework: Electromechanical Systems Design, Data Science, Product Management, Quantitative Entrepreneurship

Purdue University – BS in Mechanical Engineering Aug 2020 – May 2024

Coursework: Machine Design, Controls, FEA, Statics & Dynamics, Heat & Mass Transfer, Thermodynamics, Fluid Mechanics

Experience

Pebble Mobility, Plumbing & Fluid Systems Engineer – Fremont, CA Jun 2026 – Jul 2026

- Led cost-reduction efforts on the existing fluid and plumbing systems; position eliminated in a company-wide restructuring

RoCo Global, NPI Engineer Intern – Pittsburgh, PA Jan 2026 – May 2026

- Designed and prototyped a custom automated sieve-feeding mechanism in Fusion 360 for clump breakdown of proprietary PU foam powder, increasing manufacturing throughput by 300%
- Coordinated three external laboratories validating PU foam-additive formulations against applicable ASTM standards

Fourier, Hardware Engineering Intern – Mountain View, CA May 2025 – Aug 2025

- Took over an undocumented hydrogen dryer program with a senior engineer and one other intern after its lead departed, running temperature-profile, time-to-temperature, and time-to-saturation experiments to reconstruct its behavior
- With pressure-swing adsorption ruled out by the system's operating conditions, modified the unit toward temperature-swing by re-specifying O-rings, adding PID-controlled heating tapes, and revising insulation and sensor layout; stabilized erratic dew-point readings, then showed the existing design could not support in-situ regeneration
- Co-proposed the pilot architecture the team built: three off-the-shelf aluminum columns with ex-situ desiccant regeneration, replacing the PSA unit's stainless steel, with embrittlement judged an acceptable risk over a 1.5-month pilot
- Delivered and validated the pilot dryer with the team, extending continuous drying from 6 to 30 hours and pushing desiccant replacement out to once every 3.5 days; co-authored the program's only knowledge-transfer document
- Designed and built a sheet-metal test stand to evaluate power-supply behavior and troubleshoot I2C faults
- Designed leak-mitigating open-tray housings for electrolyzer stacks with drainage slopes, protective geometry, and Sorbothane feet for vibration damping and insulation, iterating the design through 3D-printed prototypes

Michelin, Research & Development Intern – Pune, India Sep 2024 – Dec 2024

- Mapped lab-measured mold geometry to production tires and irregular-wear reports, quantifying how variation in mold roundness drove long-term wear on truck tires

Purdue University (BIPL), Undergraduate Research Assistant – West Lafayette, IN May 2023 – Dec 2023

- Designed and simulated a 9×9 dielectric elastomer actuator array in Abaqus under 100% equibiaxial prestretch, mapping temperature to applied voltage on thermally coupled elements; ran the voltage sweep that generated the 10,000-case strain-field dataset used to train the array's deep-learning controller

Michelin North America (PRIME), Process Quality Engineering Intern – Greenville, SC May 2022 – Aug 2022

- Investigated a high-priority scrap defect by inspecting 500+ tires and recording multi-parameter data; designed a go/no-go gauge, iterated 3D-printed prototypes with operator feedback, and drove a 100-unit stainless steel rollout applying DFM

Projects

Launch-A-Birdie: Automatic badminton shuttlecock launcher Aug 2025 – Dec 2025

- Designed and assembled a robotic launcher in Fusion 360, integrating feeding, actuation, and aiming subsystems; wrote Arduino firmware coordinating servo and stepper mechanisms, validated through iterative prototype builds

Publications

Wang J., Sarkar D., **Mohan A.**, Lee M., Ma Z., Chortos A. Deep Learning for Strain Field Customization in Bioreactor with Dielectric Elastomer Actuator Array, *Cyborg and Bionic Systems* (Science Partner Journal, AAAS), Aug 2024

Technical Skills

Design & Simulation Tools: SOLIDWORKS | Siemens NX | Fusion 360 | Abaqus | COMSOL

Prototyping & Manufacturing: 3D Printing | Sheet Metal Design & Fabrication | DFM/DFMA | ASTM Test Standards

Programming & Data Tools: MATLAB | Python | Arduino (C++) | Excel