

# Arthur Ghukasyan

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## Education

### **WORCESTER POLYTECHNIC INSTITUTE (WPI) | WORCESTER MA | MAY 2026**

- Bachelor of Science in Mechanical Engineering, GPA 3.9

## Experience

### **ADDITIVE MANUFACTURING INTERN | COPELAND | JANUARY 2025-MAY 2025**

- Optimized 3D cad models for FDM thermoplastic and BMD metal machines using specialized software
- Supported Product Design and Manufacturing Engineers with Design for Additive for fixtures and assemblies
- Conducted the largest 3D printing project to date, reducing outsourcing costs and improving production capacity
- Performed 3D scanning on 3D prints and compared to theoretical model for validation and optimization

### **ENGINEERING INTERN | PULPDENT | JUNE 2024-AUGUST 2024**

- Designed and fabricated a pneumatic filling machine which increased production of dental syringes by 25%.
- Created a procedure to upgrade the filling machine to an electro-pneumatic system
- Experimented with FDM, SLA and resin molds to create marketing material for displaying dental fillings
- Assisted engineers with technical and regulatory documentation (ISO 9001) such as validations (IQ, OQ, PQ)
- Operated mills, lathes, band saw, drill presses, power tools in machine shop

### **FULFILLMENT CENTER WAREHOUSE ASSOCIATE | AMAZON | MAY 2023 - AUGUST 2023**

- Sorted thousands of packages in fast paced environment for the delivery drivers to pick up the packages on time
- Achieved the fastest sorting rate of over 500 packages per hour

### **INNOVATION STUDIO WORKSHOP LEADER | WPI | AUGUST 2022- MAY 2023**

- Teach the student body fabrication and design skills through workshops surrounding soldering, sewing, rotary tool operation, 3d printing, laser cutting, leatherworking
- Maintained the makerspace by repairing broken tools, replacing missing tools, and organizing tools to provide better experience for students who use the makerspace.

## Projects

### **SAE AERO DESIGN | TEAM MEMBER – WINGS OF GOMPEI |2025-2026**

- Collaborating on the design and fabrication of a fixed-wing RC aircraft for the 2026 SAE Aero Design competition
- Developing CAD models and performing structural analysis for lightweight airframe components
- Coordinating with individuals on manufacturing plans, and documentation for competition readiness

### **PEN PLOTTER | ENGINEERING EXPERIMENTATION |2024**

- Built a vector-based drawing machine using stepper motors, servo motor, and a Raspberry Pi Pico
- Designed a robust frame with 3D-printed components to mount motors, bearings, and guide rails
- Developed custom Micro Python code to interpret and execute G-code commands for pen movements

## Skills

### **TECHNICAL**

- Computer: SolidWorks, NX CAD, Fusion 360, Arduino (C++), Raspberry Pi (Python)
- Manufacturing: Vertical Mills, Lathes, 3D printing, laser cutting, DFM, GD&T (ASME Y14.5), Hand tools

### **ANALYTICAL**

- Skilled in identifying, dissecting, and solving complex engineering problems through iterative design and testing
- Able to evaluate multiple design alternatives to determine the most effective and efficient solution

## Interests

- Astronomy, Gymnastics/Fitness, Photography, Puzzle Solving, Watchmaking