Gagik Khachatryan

(559) 387-0606 | gagik.khachatryan893@gmail.com | Los Angeles, CA

Education

University of California, Los Angeles (UCLA) — Los Angeles, CA
Bachelor of Science in Mechanical Engineering — *Expected June 2028*

Clovis Community College — Fresno, CA
Associate of Science in Engineering | GPA: 4.0/4.0 — *Aug 2024 – May 2026*

Technical Projects

Bruin Racing — 2026 – Present

- **Supermileage – Steering Subteam:** Completed CAD models for an accelerator pedal box and steering tie rod; preparing designs for fabrication.
- **Formula – Accumulator Test Bench:** Developing CAD for a battery accumulator test bench to measure airflow and compare experimental results with theoretical predictions.

Myoelectric Prosthetic Arm | Engineering Director — Jan 2026 – May 2026

- Cofounded and led a 50+ member multidisciplinary team developing a tendon-driven prosthetic arm with a target cost below $500; completed mechanical assembly weighed 390 g without electronics.
- Led mechanical design in SOLIDWORKS, analyzing finger range of motion and tendon displacement and checking packaging clearances for a custom PCB and three servos.
- 3D-printed PLA fit-check prototypes and a functional 19-part PETG hand, refining joint clearances to 0.3–0.5 mm for smooth articulation.
- Estimated tendon tension and servo torque through mechanical calculations and hand-scale testing; coauthored a technical report documenting subsystem integration.

MATE ROV Manipulator — Aug 2025 – Dec 2025

- Designed a 30-component underwater manipulator with a modular hub and interchangeable claws in SOLIDWORKS and Fusion 360, addressing gear mechanisms, material selection, and waterproofing requirements.
- Authored a 25-page technical report documenting design iterations and system tolerances.

Experience

Fresno Auto Service — Fresno, CA
Mechanic Shop Intern — *Aug 2024 – Apr 2025*

- Diagnosed electrical and powertrain faults using digital multimeters, OBD-II scan tools, live sensor data, and OEM wiring diagrams.
- Repaired brake, wheel, engine, and cooling systems; resurfaced brake rotors and inspected dimensions and clearances with micrometers, calipers, and feeler gauges.
- Reassembled components to manufacturer torque specifications; verified repairs through diagnostic scans, leak inspections, and operational checks.

MESA (Math, Engineering, Science Achievement) — Fresno, CA
Tutor & Ambassador — *Sep 2025 – May 2026*

- Secured $4,000 for a 3D printer and breadboards by authoring an equipment funding proposal.
- Tutored 100+ students in engineering, physics, and mathematics, adapting instruction to individual learning needs.
- Organized a hands-on bridge-building competition to engage students in designing within physical constraints.

Technical Skills

CAD & Drafting: SOLIDWORKS (CSWP – Mechanical Design, Oct 2026), Autodesk Fusion 360, AutoCAD
Engineering Drawing: GD&T, engineering drawings
Analysis & Materials: ANSYS, finite element analysis (FEA), engineering materials fundamentals
Fabrication: Manual machining, lathe operation, FDM 3D printing (PLA, PETG; Bambu Lab)