

Oliver Chamoun

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EDUCATION

University of Waterloo

BASc, Honours Mechatronics Engineering

- President's Scholarship of Distinction

Waterloo, ON

Expected Apr 2028

SKILLS

Mechanical Design: SolidWorks, Onshape, AutoCAD, GD&T, Tolerance Stack-Up Analysis, DFM, DFA, Structural & Thermal Simulation, Injection Molding, CNC Machining, 3D Printing, Mechanical Assembly

Software: C, C++, Python, MATLAB, OpenCV, Linux, Git, PlotJuggler, Keynote

Technical: Computer Vision, Machine Learning, RTOS, Circuit Analysis, Data Analysis, Production Optimization, Automotive Repair, Drone Piloting

Certifications: SolidWorks Associate (CSWA), Drone Pilot (RPAS), Red Cross First Aid

Languages: English, French, Arabic

Interests: Chess, Piano, Rubik's Cubes, Robotics

Sports: Swimming, Ultimate, Calisthenics, Volleyball, Skiing, Cycling, Boxing

EXPERIENCE

Apple

Engineering Program Manager Intern, SoftGoods

Cupertino, CA

Sep 2025 – Aug 2026

- Owned the **FineWoven Key Ring program end to end** for 5 new colors, driving schedules, engineering builds, and supplier validation from development through mass-production release
- Drove color development for the **iPhone 18 Pro and Pro Max TechWoven cases** across 6 new colors, while supporting design, materials, reliability, and supplier teams through launch
- Managed engineering bucks (phone-form test samples) for the **entire iPhone 18 lineup**, planning builds, quantities, vendors, and distribution to support reliability testing and knockout DOEs for design changes
- Ran a **500+ participant field study** across the 2025 accessories lineup (cases, Crossbody Strap, MagSafe Wallet), analyzing failure data to drive additional testing and design improvements on upcoming programs
- Developed **AI tools adopted by program management teams across Apple**, automating build allocations, Keynote presentation creation, and meeting notes, each saving 2+ hours of manual work per day

Teledyne FLIR

Mechanical Designer

Waterloo, ON

Jan 2025 – Apr 2025

- Designed **UAV mechanical components in SolidWorks**, including injection-molded housings, CNC-machined aluminum brackets, and high-reliability assemblies, reducing prototype iterations by 30%
- Created **2D technical drawings with GD&T** for suppliers and manufacturers, improving tolerance stack-up analysis and cutting machining errors by 20%
- Developed and tested 3D-printed functional prototypes, refining UAV fixture designs for manufacturability and achieving a **15% weight reduction** without sacrificing durability
- Performed **structural, thermal, and stress simulations** on UAV enclosures and payload mounts, identifying weak points and increasing predicted fatigue life by 25%

Mitchell Plastics

Project Engineering Intern

Kitchener, ON

Apr 2024 – Aug 2024

- Tracked 150+ open issues on the **2026 Toyota RAV4 program**, resolving them 25% faster by streamlining the Open Issues List with design engineers and manufacturing technicians
- Led weekly **cross-functional meetings** with design, manufacturing, and quality teams, reducing communication delays by 30% and improving tool delivery timelines
- Developed standardized documentation for design changes and tooling, cutting document retrieval time by 40% during process audits
- Coordinated pre-production trials for new tooling and gathered vendor DFM feedback for high-volume injection molding, reducing **scrap rates by 15%** and production cycle times by 20%

Porsche

Assistant Mechanic

Beirut, Lebanon

Oct 2023 – Dec 2023

- Diagnosed and repaired engines, transmissions, and electrical systems on high-performance Porsche vehicles using PicoDiagnostics NVH kits and diagnostic software
- Maintained and repaired Porsche suspension systems using road force balancing and wheel alignment, improving handling and safety and raising **customer satisfaction ratings by 50%**
- Collaborated with senior mechanics to isolate faulty engine components, enabling efficient repairs and improved vehicle performance
- Applied working knowledge of turbochargers, differentials, and exhaust systems to repairs, reducing customer repair costs by 30%

Skygauge Robotics

Product Engineering Intern

Hamilton, ON

Jan 2023 – Apr 2023

- Updated drone component testing procedures with new protocols and R&D concepts, increasing testing accuracy by 20%
- Performed root cause analysis on crashed drones and wrote formal repair work instructions, reducing repair time by 30% and **saving \$10,000 annually**
- Exceeded the previous quarter's **production targets by 200%** by implementing more efficient manufacturing processes
- Identified production inefficiencies through data analysis and introduced **lean manufacturing practices**, cutting production costs by 15% and production time by 3 weeks

PROJECTS

Ball Balancing Beam

Sep 2026 – Oct 2026

- **Led mechanical design in Onshape** of a CNC-cut 4 mm acrylic frame and beam, actuated by an MG995 servo through a four-bar linkage with press-fit bearings at each pivot
- Integrated a PLA truss trough and a sensor PCB of 8 TEPT5600 phototransistors to track ball position for a Python PID controller commanding an Arduino Mega over serial

The Atlas Sand Table

Nov 2022 – Dec 2022

- Built a mechatronic sand table on LEGO EV3, integrating sensors and motors to steer a magnet beneath the sand along paths read from text files, with touch-sensor user control

UW Formula Electric

- Created a hardware-in-the-loop (HIL) test system for the design team

More projects, including the Smart Hole Detector and Keychain: oliverchamoun.com/portfolio

ADDITIONAL EXPERIENCE

Candid Image & Lebanese Scouts Association

Photographer & Videographer; Senior Patrol Leader

Beirut, Lebanon

Jun 2019 – May 2022

- Captured and edited 500+ event and portrait photographs using Adobe software, raising social media engagement
- Organized and led weekly training sessions for 30+ scouts on teamwork, leadership, and survival skills
- Managed logistics, scheduling, and risk assessments for 50+ outdoor events and hiking trips