Alex Rochette

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EXPERIENCE

Mowze   Feb. 2025 – Sep. 2025
Assembly Technician   Olney, MD

- Built **5 autonomous mower prototypes** from the ground up, including chassis assembly, custom Li-ion battery pack fabrication (30-cell series-parallel configuration with BMS, thermistors, and balancing wires), and full electrical integration of Pixhawk, PCBs, voltage regulators, and drive/blade motor systems
- Logged **300+ hours of field testing** across internal validation and client deployments; identified critical design improvements including anti-scalp deck modifications and delivered chassis G-force data to engineering team
- Contributed to product development by recommending mobile app features such as job queueing system redesign; supported business model development, shop operations, and marketing content creation

Professional eSports – Apex Legends   2022 – 2024
In-Game Leader   Remote

- Earned **$5K+ in tournament winnings** and reached a peak **#12 global ranking** among several million active players through daily practice, VOD analysis, and targeted skill development
- Led competitive roster to **top 40 in North America** as shot-caller and primary strategist, managing real-time tactical decisions, ongoing coach and teammate feedback, and interpersonal dynamics in high-pressure tournament settings

PROJECTS

IronAxis – Barbell Form Tracker

- Conceived and drove development of a BLE-enabled wearable barbell sensor for real-time form feedback, defining product requirements, selecting hardware architecture (ESP32-C3, MPU6050 IMU), and delegating workstreams across a 4-person team
- Designed full electrical system and coordinated SolidWorks enclosure design, Arduino firmware, and MATLAB analytics pipeline; iterated through three prototypes to deliver a working tilt-detection and bar path tracking device

FPV Racing Drone | *Custom Build*

- Built a custom FPV racing drone from a component-level kit; soldered ESCs, flight controller, and VTX, troubleshot solder joint failures and goggle firmware configuration issues; tuned and flew using Betaflight

EDUCATION

Northeastern University   Sep. 2025 – Apr. 2029
Bachelor of Science in Industrial Engineering and Business Administration   Boston, MA

- **GPA**: 3.61 | **Concentration**: Entrepreneurial Startups

CERTIFICATIONS

Six Sigma Green Belt – Expected Mar. 2026
FAA Part 107 Remote Pilot Certificate – Issued Nov. 2024 | Credential ID: 5090767

SKILLS

Technical: Python, MATLAB, SolidWorks, AutoCAD, Betaflight, Soldering, Electromechanical Assembly
Languages: English (Native), French (Advanced), Spanish (Conversational)