Russell Boyer

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Education

Purdue University — West Lafayette, IN
Bachelor of Science in Aeronautical and Astronautical Engineering — *Expected May 2028*
Academic Standing: 3.76 GPA, Senior standing by credits

Glastonbury High School — Glastonbury, CT
High School Diploma — *June 2025*
GPA: 4.78/5.0 (Weighted); SAT: 1520 (750 EBRW, 770 Math), 11 APs

Technical Skills

Languages: Python (PyTorch, TensorFlow, Flask), Java, C#, C++, SQL, JavaScript, Tailwind-CSS, Typescript, R
CAD & Simulation: Autodesk Fusion 360, Unity, SolidWorks, NX, Finite Element Analysis (FEA)
Hardware & Electronics: Arduino, Raspberry Pi, PCB Design & Soldering, Circuit Analysis
Human Languages: English (Native), Mandarin (Fluent)

Experience

Rumico LLC — Remote
CEO & Co-founder — *July 2025 - Present*
Co-founded a tech startup to develop full-stack AI-driven consumer and business applications.
Leading the development of "Credit Crouton," a transparent credit comparison tool designed to disrupt the $7B credit card comparison market using advanced data analysis.

Research Assistant, Department of Chemical Engineering — Storrs, CT
University of Connecticut (GHS Mentorship Program) — *Aug 2024 - Mar 2025*
Developing machine learning algorithms to analyze and predict material properties of graphene-polymer composites for next-generation spacesuit applications using Density Functional Theory (DFT).

Glastonbury High School Rocketry Club — Glastonbury, CT
President & Lead Engineer — *Aug 2023 - June 2025*
Revitalized a defunct club nearing bankruptcy, increasing membership by 300% and leading the team to a 120x increase in successful launches and $6k in business funding. Decreased cost-per-launch by 92%. Cultivated a hands-on, fast-paced environment and strong teamwork.
Managed project timelines, design reviews, and build sessions for the American Rocketry Challenge (TARC).

Engineering Projects

AI-Powered Rocket Parachute Deployment System — *Fall 2023 - Spring 2025*
Engineered an autonomous, reusable parachute system controlled by a reinforcement learning agent trained on a Proximal Policy Optimization (PPO) algorithm.
Designed, modeled (Fusion 360), and 3D-printed a lightweight, high-g tolerant mechanical release mechanism.
Developed and soldered a custom PCB integrating a BMP388 altimeter with an Arduino Nano to process real-time flight data.
Trained the agent on thousands of virtual launches in Unity, achieving 98% deployment success in physical tests.

Awards & Leadership

Harvard Model United Nations — Best Delegate Award
Feb 2025
Received the top individual award at the world's most prestigious and competitive Model UN conference (4,000+ delegates), in the most competitive commitee.

Glastonbury High Model UN Club — President
Aug 2024 - June 2025
Founded and directed a student-led, statewide conference, securing $17,500 in funding.

Connecticut Science Olympiad — Gold Medal, Chemical Detector Building
Apr 2024