RYAN KIACHIAN

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EDUCATION

Cornell University, Sibley School of Mechanical and Aerospace Engineering, Ithaca, NY **Expected May 2025**
Bachelor of Science, Mechanical Engineering

Relevant Courses: Propulsion Aircraft and Rockets, Dimensional Tolerancing, Automotive Eng., Heat Transfer, Electric Drive Vehicle Eng., Digital Manufacturing, Materials Processing and Manufacturing, Thermodynamics, Fluid Dynamics, System Dynamics, Mechanics of Materials, Dynamics, Mechatronics

Bellarmine College Preparatory, San Jose, California **May 2021**

TECHNICAL EXPERIENCE

Northrop Grumman, El Dorado Hills, CA **Summer 2024**

- Created a spreadsheet that calculates weight, energy consumption, heat dissipation, and volume for a turbo generator system
- Outlined the goals, methods, obstacles, and procedure to find the required heat dissipation for the coolant systems of the generator
- Wrote a thermocouple test procedure which detailed the odds of drift, ways to test accuracy, other possible sources of error, and steps forward
- Performed an exhaustive search for parts by calling and communicating with vendors and suppliers

Alef Aeronautics, Santa Clara, CA **Summer 2023**

- Designed, manufactured, and assembled parts for prototype flying car
- Deconstructed/Reassembled batteries + soldered and crimped wires
- Assembled and adjusted motor mounts and propellers
- Used CAD to design a test stand for speed control and flying

Fluids & Heat Transfer Lab, Cornell University **Fall 2024**

- Operated wind tunnels, load cells, pressure transducers, anemometers, strain gauges, thermocouples, etc to measure flame temperature, wind velocity, lift and drag, fluid-flow rate, turbulence, airfoil stall, and spark ignition engine performance
- Automated data acquisition, monitored real-time sensor outputs, and analyzed experimental data using LabVIEW

Mechanical Synthesis Lab, Cornell University **Spring 2023**

- Led a small team to design a water pump using CAD software
- Machined and successfully built the pump using mills, lathes, 3D-printers, and laser cutters

System Dynamics Lab, Cornell University **Fall 2023**

- Designed open and closed loop feedback controllers to meet performance specifications on dynamic response
- Implemented by using oscilloscopes, dynamic signal analyzers, function generators, and proximity sensors

Mechanics & Materials Lab, Cornell University **Fall 2023**

- Operated tensile, compression, and torsion machines for acceptance testing and failure analysis

SKILLS

Programs: LabVIEW, GD&T, CAD (Fusion 360, AutoCAD Electrical/Mechanical, AutoDesk, SOLIDWORKS), MATLAB, Microsoft Excel, Microsoft Powerpoint, and Rapid Prototyping (3D printing)

LEADERSHIP EXPERIENCE

Cornell Men's Basketball **August 2021-Present**
NCAA Division-1 Student-Athlete

- Developed communication skills to motivate various types of personalities to get the best performances out of individuals and the team as a whole
- Effectively created challenging, yet attainable goals as well as a strategy on how to achieve them
- Established strong work ethic to balance 30+ hour weekly training and travel, while maintaining full course load

Bellarmine College Preparatory Basketball, Team Captain **September 2019-May 2021**