

NIKITAS KLAPSIS

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EDUCATION

University of Southern California	Los Angeles, CA
Bachelor of Science in Astronautical Engineering	May 2026-May 2026
Minor in Applications of Artificial Intelligence	
GPA: 3.77 / 4.0	

EXPERIENCE

USC Rocket Propulsion Lab	Los Angeles, CA
Manufacturing Engineer	August 2022-Present

- Collaborate on manufacturing major flight components including fin leading edges, bulkheads, and nozzles
- Design, manufacture, and integrate cable management drag chains for a custom CNC router
- Manage structural analysis and design of new water catch basin for RPL's liquid rocket test stand using Siemens NX
- Troubleshoot thrust stand while integrating to pad, resulting in a static fire with no incidents

Crescenta Valley Enterprises	Glendale, CA
Software Development Intern	January 2019-June 2022

- Created and taught intro to machine learning course in Python, introducing key concepts through the Pyribs library
- Co-developed an online IDE hosted on a school server so students can run code locally on Chromebooks
- Introduced Java to high school students, teaching AP Computer Science under Dr. Gregory Neat

ACADEMIC EXPERIENCE

Pyribs, Python library for quality diversity optimization	Los Angeles, CA
Research Assistant	June 2021-July 2021

- Developed a tutorial for the Pyribs machine learning library using the CMA-ME algorithm developed in Dr. Stefanos Nikolaidis's ICAROS lab, University of Southern California.
- Investigated applications of Quality Diversity algorithms with multiple test environments using OpenAI gym.

FRC Team 589 2022 Competition Bot	Los Angeles, CA
Design Lead	January 2021-May 2022

- Spearheaded the design of team 589's competition robot for FRC's RAPIDREACT game
- Prototyped and tested a ball storage and shooter system to accurately shot balls into a hoop from large distances
- Instructed new team members on principles of design and engineering, creating a cohesive design team

RELATED COURSEWORK

- Material Science I, Multivariable Calculus, Introduction to Astronautics, Fundamental Physics

SKILLS

- CAD: Autodesk Inventor (Proficient) and Fusion360 (Novice), Siemens NX (Intermediate)
- Programming: Python (Proficient), Java (Proficient), MATLAB (Novice), PHP (Novice)
- Manufacturing: mill (Proficient), lathe (Proficient), bandsaw (Proficient), waterjet (Intermediate), 3D printing (Proficient)
- Other: Microsoft Office (Proficient), Blender 3D animation creation suite (Novice)

EXTRACURRICULAR ACTIVITIES

Crescenta Valley YMCA Youth & Government	Glendale, CA
President	August 2021-May 2022

- Lead a delegation of over 60 students in political discussion and introduction to law making processes
- Organized team-building events to help delegates connect with one another while working on pressing political issues