Mark Agban

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EDUCATION

University of California, Los Angeles, *Westwood, CA* **GPA: 3.33** **Expected Graduation: Winter 2027**

Major: Aerospace Engineer

- Relevant coursework: Mechanics; Oscillations; Waves; Electric and Magnetic Fields; Mechanics Laboratory; Electricity and Magnetism Laboratory; Statics and Strength of Materials; Mathematics of Engineering; Elementary Fluid Mechanics

College of The Canyons, *Santa Clarita, CA* **GPA: 3.91** **Summer 2021 - Summer 2023**

- Dual Enrollment throughout High School

RELEVANT EXPERIENCE

Haas Automation, Oxnard, CA – Mechanical Engineer Internship **June 2024 – September 2024**

- Utilized SolidWorks, 3D printers, plasma cutters, and bandsaw to manufacture parts for CNC machines that I designed in SolidWorks to enhance machine performance and smoothness.
- Inspected parts using engineering drawings and measuring tools on fixtures and manufactured components to validate processes in production.
- Designed and implemented an HID-controlled access system for securing high ended machines using employee card scans, solenoid locks, and Arduino-based control. Fabricated custom locking mechanisms with SolidWorks and metalworking tools.

ENGR 96 Group High Powered Rocket (GHPR), UCLA **Fall 2023**

- Developed CAD designs for the GHPR rocket fins using SolidWorks, OpenRocket, and other manufacturing tools such as a laser cutter, enhancing the margin of stability to 1.65.
- Applied machining techniques, including mills, lathe, sanding, and fiberglass lay-ups, to fabricate the rocket's body tube.
- Successfully launched the GHPR Rocket at Sante Fe Dam, achieving an apogee of 2600 feet, a top speed of 491 mph, and a flawless parachute deployment where the rocket was retrieved intact.

Disabilities & Computing Program, UCLA – Lead Accessibility Engineer **Fall 2023 – Present**

- Serving as an Accessibility Engineer, dedicated to enhancing PDF accessibility as part of the University Web Accessibility Initiative (UWAI).
- Conducting in-depth consultations on document accessibility, specializing in remediation for PDF files.
- Proactively contributing to the promotion of inclusive and accessible digital content within the university community.

Aerospace Engineering Internship, SHINE Program, USC **Summer 2022**

- Investigated the effects of porous features on the performance of a solid airfoil in the USC Fluid Structure Interactions Lab; collected and analyzed experimental data, comparing spacing of holes at 10%, 15%, and 20% throughout the airfoil.
- Collaborated with a team of engineering students to design, build, and test a functional prototype of a small-scale porous airfoil using SolidWorks, and performed numerical simulations in commercial software, 3D-printed using a stereolithographic 3D printer, and conducted laboratory experiments on the airfoil in a water channel.
- Mastered the typical workflow for computational fluid dynamics simulations, from designing a model to meshing, setting up the numerical method, and solving in Ansys.

Skills: Ansys, MATLAB, SAP, SolidWorks, OpenRocket, Java, Excel, Adobe

AWARDS

Valedictorian, Golden Valley High School **Summer 2023**