ANTHONY DRABECK

⬥ tonydrabeck.com ⬥ tony@tonydrabeck.com ⬥ (805) 796-8833 ⬥ Clearances: SCI, DoD TS (06/2021)

EDUCATION

University of California – Irvine   **September 2018 – June 2022**
- B.S., Mechanical Engineering, 3.4 GPA Dean's List
- **Relevant Coursework:** Astronautics, Vibrations, Dynamics, Analog Circuits, Intro to Control Systems, Applied Thermodynamics, Heat and Mass Transfer, Fluid Mechanics, Viscous and Compressible Flows

PROFESSIONAL EXPERIENCE

Mechanical Ground Systems Engineering Intern   **Summer 2020 – Current**
Northrop Grumman: Redondo Beach, CA
- Designed easy to manufacture solution to protect sensitive flight hardware from being damaged during testing
- Took design through multiple high visibility design reviews with customer and variety of departments
- Supported design through manufacturing process including procuring necessary materials & hardware
- Improved efficiency by creating department wide Catia assemblies for commonly used hoisting hardware

Engineering Intern   **Summer 2019**
Saratech: Mission Viejo, CA
- Automated extensive standard parts database using Visual Basic code in Siemens NX
- Developed user friendly algorithms to generate Excel sheets for driving model dimensions

PROJECTS

Chief Engineer   **September 2020 – Present**
UC Irvine Rocket Project
- Led team to successful static test fire of bipropellant cryogenic liquid oxygen and liquid methane engine
- Overseeing launch vehicle design team to ensure feasibility/manufacturability of rocket structure
- Responsible for physical manufacturing of all parts (machining and welding)
- Conceptual design of capacitive liquid level sensor for cryogenic fuels

Founder and Project Manager   **September 2019 – Present**
UC Irvine Frame Building Project
- Developed a weldless mountain bike frame using additively manufactured aluminum, carbon tubes, and adhesive
- Welded a road bicycle frame using oxy-acetylene brazing; designed and machined modular welding fixture

Modular Analog Synthesizer Research
- Design/fabrication of AC to DC power supply using wave rectifier design in order to provide clean power
- Currently prototyping analog voltage controlled oscillator based (VCO) on an integrated circuit (IC)

UC Irvine Cube Satellite   **January 2019 – January 2020**
Thermal Management
- Developed simple and elegant heating element solution with a control circuit
- Devised accurate and repeatable method for bending thermally conductive wire using 3D printed tooling

SKILLS

Fabrication		Software		Certifications
Manual mill	3D printing	Siemens NX	MATLAB/Simulink	Solidworks Associate
Manual lathe	MIG Welding	CATIA	Java, C++, Arduino	Lean Six Sigma – White Belt
Oxy-acetylene brazing	Soldering	SolidWorks	Eagle Circuit Design	
		Visual Basic	Excel Macros	