Robert Rodriguez

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I am an aerospace engineer that is interested in satellite systems and aerodynamics, and I am most interested in flight planning and flight testing.

EDUCATION

Arizona State University, SEMTE Graduated**:** December 2021
Bachelor's Degree in Aerospace Engineering

EXPERIENCE

TOPCON Positioning Systems | Test Automation Engineer January 2022 - Current

- Worked with python to analyze GNSS data through GGA messages and NMEA2K to visualize atmospheric conditions and positioning offsets.
- Created an automated report of the GNSS logs that points out where there are high SNR values, or unfavorable DOP's.
- Worked with CANbus connectors and other connector types to collect data from certain receivers.
- Tested positioning and auto-driving tractor systems. Wrote detailed reports regarding testing procedure, methods, and results using data collected during the experiments.
- Helped manage data engineering interns and specialized in debugging both real problems and coding related problems from my own or their codes.

Crystal Communications | 3D Modeling Contractor June 2021 – July 2021

- Modeled in Solidworks to create replacement parts for handheld radios.
- Used Solidworks assembly feature to build and present parts to the customer.

Space Tourism Aircraft Project | Mission Operations Lead August 2021 - December 2021

- Lead the mission operations team while working on a takeoff and landing capable aircraft which can reach altitudes greater than 100km using both jet and rocket propulsion.
- Focused on running trade studies which told me the ideal flight conditions of the aircraft (e.g., cruising altitude, cruise Mach number, angle of attack upon atmospheric reentry).
- Utilized MATLAB, Excel and ModelCenter for data analysis. Used an aircraft stability modeler and VBA based mission performance code to create the data.

TECHNICAL SKILLS

Programming:	VBA, SQL (1yr) | Python (2yrs) | MATLAB (4yrs)
CAD:	Solidworks (FEA), AutoCAD, Ansys (Fluent) (2yrs) | Solidworks (5+yrs)
Operating Systems:	Linux, Raspberry Pi (1yr) | Windows (5+yrs)
Microsoft Office:	PowerPoint, Teams (2yrs) | Word, Excel (5+yrs)
Fabrication:	Hand/Power Tools, Prototyping, Designing (5+yrs)

References Available Upon Request