Adrian Danao-Schroeder

B.S. Aerospace Engineering • B.A. Chinese
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EDUCATION

University of Maryland College Park, College Park, MD **GPA: 3.24**
Bachelor of Science Aerospace Engineering **May 2019**
Bachelor of Arts Chinese **Aug. 2019**

Relevant Courses: Space Propulsion, Space System Design, Mechanics of Composites, Linear Controls, Vibrations and Aeroelasticity, Dynamics of Aerospace Systems, Space Flight Dynamics, Aerodynamics

WORK EXPERIENCE

Link Coder, Online Publications Dept. at American Immigration Lawyers Association **Aug. 2019 – Present**

- Worked on document conversion code to convert completed legal documents to HTML for online publication
- Wrote documentation and maintenance manuals for existing document conversion and database management
- Created an automated and manual lookup tool to link document references to an online document database
- Reduced time to review converted HTML documents from 2 business days to 2 hours

Software Licensing Associate, University of Maryland Division of IT, **Feb. 2016 – Sep. 2018**

- Licensed and managed software contracts, distribution and maintenance for the University of Maryland
- Administer software distribution service for all members of the University of Maryland
- Provided technical support and troubleshooting for problems related to software installation and licensing
- Hired and trained new staff members to manage distribution and provide technical support to faculty and staff

PROJECT EXPERIENCE

Terrapin Rockets Development Team, *Propulsion Team* **Oct. 2017 – May 2019**

- Developed a paraffin and liquid N_2O hybrid rocket motor and test stand capable of producing 200 lb. of thrust
- Utilized ANSYS Fluent and CHEMKIN to simulate combustion chamber dynamics to determine regression rates, predicted chamber pressure and temperature for the small scale test stand
- Designed hybrid rocket motor rocket to push a 8.5kg to 30,000 ft. for the Spaceport America Cup

Deployable Heat Shield, Space Systems Laboratory, *Mechanical Team Leader* **Jul. 2018 – Jul. 2019**

- Designed a deployable heat shield to recover a 3U CubeSat from low earth orbit
- Simulated reentry conditions and flow over heat shield at hypersonic reentry velocities
- Used methods of characteristics and ANSYS Fluent CFD, to determine ballistic coefficients, flight trajectory and passive stability in hypersonic, supersonic and subsonic flight

CanSat Competition 2018 Deployable Heat Shield, *Mechanical Team Leader* **Oct. 2017 – Jun. 2018**

- Designed and built a rocket launched probe to test and simulate a deployable heat shield to slow probes descent
- Used ANSYS Fluent CFD simulations of descent rate and stability of probe and heat shield during flight to modify the design accurately determine the flight characteristics
- Placed 4th among 104 international teams competing in competition

Flight Controller for Propulsive Landing, Control of Aerospace Systems **May 2018**

- Developed a flight control algorithm to land a simulated rocket on a moving barge
- Flight controller implemented noise pre-filtering, external disturbance rejection and second order target tracking

SKILLS

Programs: ANSYS (Fluent, FEA, CHEMKIN), Siemens NX, NASTRAN, STK, SolidWorks, AutoCAD, MATLAB
Programming: Java, JavaScript, Python, C++, HTML, CSS, Ruby
Fabrication Skills: Welding (TIG and Stick), Lathe, Milling, General Shop Machines
Foreign Languages: Spanish (Native Fluency), Chinese (6 years of study)