

Adam Benabbou

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EDUCATION

Master of Science in Aerospace Engineering

Aug., 2020 – GPA: 4.0/4.0

Bachelor of Science in Aerospace Engineering

May, 2019 – *Summa Cum Laude*

The University of Alabama, Tuscaloosa, AL

Minor: Randall Research Scholars Program

The American School of Tangier

May, 2015 – *Valedictorian*

SELECT

TECHNICAL EXPERIENCES

*June 2019 – August
2019*

Special Projects Intern – Scout Energy Partners

- Conducted market research into drone and sensor technologies in the energy industry, performed extensive research into current company operations and identified opportunities for potential improvements
- Proposed to Senior Leadership a drone-based solution to significantly improve leak detection process of assets and developed a detailed plan for testing practicality of proposal
- Contracted a drone service company after a thorough bidding process, conducted a proof-of-concept test, and proposed future steps for continuity of the project.
- Coded a web-based oil and gas actuals visualization tool using C# ASP.NET MVC Framework

*Fall 2018 – Spring
2019*

Systems Integration Lead/Flight Control Engineer – Project Hydrofly, The University of Alabama

- Coded a physics-based simulation in MATLAB and identified several design requirements and considerations in the early stages of the project
- Developed a propulsion method to vary thrust output of the system for hovering capabilities
- Designed the control system architecture and spearheaded the development effort for the Control Team
- Coded the flight control system for the vehicle's VTVL flight mission
- Implemented PID controllers, object-oriented programming, hardware-in-the-loop testing, software-in-the-loop testing, threading, raspberry-pi's, ultrasonic-sensors, and pressure-sensors

*May 2018 – July
2018*

Summer Research Intern – Aoki & Yokozeki Laboratory, The University of Tokyo

- Characterized cyclic behavior of flexible skin for morphing application
- Coded optical measurement technique in MATLAB for quantifying engineering strain

*Fall 2016 – Spring
2018*

Undergraduate Research Assistant – Aircraft Rapid Prototyping Laboratory, The University of Alabama

- Developed an aircraft missions simulation and analysis project using STK and MATLAB
- Designed/built/flew a 36-inch span dual ailerons model airplane wing for autonomous systems testing
- Developed and tested feasibility of Inertial Navigation System using low-cost components

SKILLS

Programming: MATLAB, Fortran, C, C++, C#, Python, Bash, SQL, AutoIt, HTML, CSS, JavaScript

Systems and Software: STK, Arduino IDE, VI/VIM, Linux OS, Windows OS, Autodesk Inventor, SolidWorks, MSC Nastran/Patran, MS Visual Studio, GIMP, Microsoft Office Suite, Git

LANGUAGES

- **English** – Native Proficiency
- **French** – Native Proficiency
- **Japanese** – Limited Working Proficiency
- **Spanish** – Elementary Proficiency

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EXTRA-CURRICULARS

Spring 2016 – Spring 2019

Lab Manager – Randall Research Scholars Program, The University of Alabama

- Managed the computer lab's Linux servers, 3D printers, and network inventory and security
- Provided technical support for members of RRSP and faculty of the Honors College

Aug. 2017 – Mar. 2019

Project Manager, Head Engineer – Alabama Prosthetic Project

- Created a committee of over 10 students interested in prosthetic design and biomedical engineering and assigned sub-committee leaders/roles through interview process
- Established weekly goals, short-term and long-term directions, oversaw meetings, and mentored sub-committee leads
- Designed CAD model to allow for customization of prosthetic hand for each recipient
- Participated in the Lemelson-MIT Competition by invitation
- Partnered with orthopedic hand surgeons at Children's Healthcare of Atlanta and Children's of Alabama

Apr. 2016 – May 2017

Vice President – American Institute of Aeronautics and Astronautics, UA Chapter

- Contacted and scheduled speakers for events and facilitated meetings when needed
- Planned and executed efforts which increased membership and club participation by over 40%

CERTIFICATIONS

- Remote Pilot Certification (sUAS) - Part 107; FAA
- STK Grand Master Certification (Level 3); Analytical Graphics Inc.
- Amateur Radio License, Technician Class (KN4JEI); ARRL

HONORS AND AWARDS

- Graduate Council Fellowship; 2019
- Outstanding Senior Award; 2019
- H.H. Chapman Award; 2018
- 3rd place at AGI EAP Grant Competition using the Systems Tool Kit; 2017
- George P. Kalv Scholarship; 2019
- Randall Research Scholars Fellowship; 2018
- Student Government Association Research Grant; 2018
- Tuscaloosa International Friends Scholarship Award; 2017