JACOB KNIGHT
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OBJECTIVE: Seeking an intern or co-op opportunity in Aerospace Engineering

EDUCATION:
Bachelor of Science in Aeronautical Engineering – UCF GPA: 3.41
University of Central Florida, Orlando, FL Expected Graduation: Aug 2018

TECHNICAL SKILLS:
- Siemens NX, CATIA, Abaqus
- Data processing with Python & MATLAB
- AutoCAD
- Full Stack (SQLite, Ruby on Rails, HTML, CSS, JS)
- Version Control with git, SVN
- Complex Problem Solving
- Modeling with SolidWorks & Fusion 360
- Building & Programming Circuits in C++ (Arduino)
- 3D Printer Calibration & Material Selection
- Computer Vision & Image Processing with RPi

PROJECTS:
Computational Fluid Dynamics study
- Simulation modeling water flow over a propeller was completed to research load over an operating propeller using CFD simulation properties in Solidworks

Competitive quadcopter design
- Original quad-copter design drafted and built in team of 5 colleagues
- Design placed first in Fall 2016 UCF AIAA Quadcopter Competition measuring speed and maneuverability in a course/payload mission

Particle image velocimetry study
- Report detailing three-dimensional PIV technology was completed as part of an optional course study
- Subjects of focus include streamline flow over an airfoil and exhaust pipe emission data in relation to efficiency of an automotive muffles

EXPERIENCE:
Undergraduate Researcher, University of Central Florida, Orlando, FL Feb 2016 – Sep 2017
- Design and test scale combustion models
- Collaboration in groups of both undergraduate and graduate level students in the field of ceramic composite materials
- Work under supervision of Dr. ABC Kefka

Summer Intern, IACMI Intern at Indiana University, Bloomington, Indiana May 2016 – Aug 2016
- Design simulate and build carbon composite airplane parts
- Work in structures subgroup of Purdue Hyperloop Team
- Experience in carbon fiber characterization

ACTIVITIES:
Officer, XYZ Honors Congress Aug 2015 – May 2016
- Host variety of events and promote campus and community involvement
- Outreach to Pineloch Elementary to encourage college preparation

Team Leader, Aviation Design Project Lead Aug 2014 – May 2014
- Direct and manage members of team to plan design and build scale aircraft
- Finished third place in AIAA aviation design competition

HONORS/AWARDS:
- Member, American Institute of Aeronautics and Astronautics May 2015 - Present
- DEF Gold Scholarship Aug 2014 - Present
- Presenter at IACMI National Conference June 2016 – July 2016
- Winner, AIAA Hovercraft Competition May 2015 – July 2015