KIM NGUYEN

https://kimmy314.github.io/
Greensboro, NC 27410

Mobile: +1 (704) 231-4684
E-Mail: kbnguyen@ncsu.edu

EXPERIENCE

Honda Aircraft Company, LLC. **September 2016 – Current**
MRB Stress Engineer Greensboro, North Carolina

- Developed Python tool to reduce engineering time to compute stresses on complex sections
- Researched and developed model for complex fasteners to reduce cost of build
- Analyze critical parts to ensure safety of aircraft
- Analyze processes and recommend cost reduction actions
- Create highly detailed Finite Element Models for special load cases and determine design change necessary to accommodate manufacturing errors
- Design and reconfigure parts using CATIA V5

Honda Aircraft Company, LLC. **June 2015 – September 2016**
Structural Test Engineer Greensboro, North Carolina

- Developed test program schematics to perform tensile and fatigue test
- Developed VBA macros to automate data reduction and analysis or large sets
- Created process and guidelines for developing Vision Coordinate Measuring Machine programs
- Created process for guideline for correcting alignment on load frames

North Carolina State Aircraft Senior Design **August 2014 – March 2015**
Team Lead Raleigh, North Carolina

- Led a group of 8 other students in order to successfully design VTOL aircraft
- Designed the overall configuration by selecting initial features such as airfoil and evolving the design as necessary
- Guided other members in analysis of aerodynamics, stability and controls, propulsion, performance, and safety
- Designed aircraft using SOLIDWORKS including material for proper weight estimates

Aerial Robotics Club, **August 2011 – May 2015**
Member Raleigh, North Carolina

- Oversaw flights and recorded data for flight history archive
- Helped build an integrated flying test bed for A/P system
- Developed mathematical model for precision air-drop of simulated medical supplies

PROJECTS

Section Analysis Tool **Python**
Tool included in Honda Aircraft standard tool library used to identify critical areas and reduce time spent on analysis of cross sections. Allows for users to generate cross sections of aircraft parts. A full analysis is done on the section which highlights min and max stress points and provides a visualized load distribution. Used git to maintain version control. Upgraded and released version 2.0 which handles multiple sections with different stiffness's.

Class Scheduler **Java**
Application is a representation of a school's class scheduler. Registrars maintain the database of classes, students and teachers. Registrars are also able to edit all classes and enrollment data. Teachers maintain their class list and class roles. Students maintain their class schedule. Used git and Jenkins to for version control and automated regression testing. Used TDD to ensure proper functionality at each user version change. Total of 3 major branches, one for each user.

EDUCATION

North Carolina State University
B.Sc. Aerospace Engineering **August 2010 – May 2015**
3.73 / 4.0 GPA Magna Cum Laude Raleigh, North Carolina

Post-baccalaureate Computer Programming **May 2016 – December 2017**
4.0 / 4.0 GPA Raleigh, North Carolina

HONORS AND AWARDS

AUVSI SUAS, 1st place, Maryland **Summer 2014**
NC Space Grant Awardee, NCSU **Summer 2014**