JACOB BASS

Contact

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3425 Buckhorn Dr.
Norman, OK

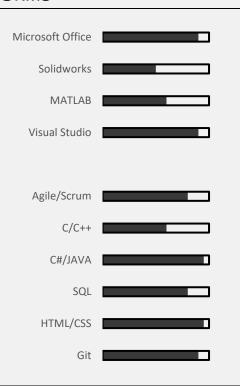**Phone**
918.533.5034

Email
bass@ou.edu

Web Portfolio
jsbass.com

Skills

Microsoft Office

Solidworks

MATLAB

Visual Studio

Agile/Scrum

C/C++

C#/JAVA

SQL

HTML/CSS

Git

Education

Aug 2013
– Aug 2016

Bachelor of Science: Aerospace Engineering
University of Oklahoma
3.0 GPA

Aug 2010
– May 2011

Oklahoma School of Science & Mathematics
Regional Center

Profile

After graduating with an engineering degree, I've spent the last year working as a software developer. I want to pivot back to aerospace and engineering while utilizing the experience I have gained as a software developer. I have multiple examples of self-motivation and try to my team better than when I arrived.

Work

Sep 2016
- Present

OU IT – IT Studio
IT Analyst I

Full stack web and mobile application development. Gained experience working as part of a team in an Agile development process, involved in tasks including: **development**, **QA**, **deployment**, and **support**.

Aug 2015
- Jun 2016

OU IT – Learning Spaces
Lead Technician

Student job leading team of peers and mentoring new employees. Gained experience with team organization and process improvement.

Experience

Spring 2016

OU Senior Capstone
Chief Engineer

Capstone to design and build scale model Northrop-Grumman reusable spaceplane. The goals were for the model to be capable of rocket assent and autonomous airplane landing

Spring 2016

Nonlinear Dynamical Systems & Control
AME 4980

This course covered an introduction to nonlinear stability methods and basic control techniques such as state linearization and adaptive control. At the end, my team and I were given a project demonstrating backstepping with a quadrotor.

Fall 2015

Dashboard Development for OU IT
Self-Started Project for OU IT – Learning Spaces

Design and implementation of web based data source compilation and display. Self-proposed project approved by team lead for a modern, responsive interface with dynamic information loading. Gained experience creating system documentation and interdisciplinary experience with team members from various fields of study.

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Awards

AP Scholar with Distinction
College Board

Science & Engineering Fair US Army Award
US Army Research Lab

Oklahoma Regents Scholar
Oklahoma State Regents for Higher Education

OUIT Employee of the Month
University of Oklahoma

Physics Journal Club Presenter
University of Tulsa

Experience Cont'd

Spring 2014 | **Embedded Systems**
AME 3623

Design and construction of an automated hovercraft with maze traversing. Gained experience with low-level programming of a microprocessor and functional programming with C.

Spring 2014 | **Robotics Design Projects**
AME 4802

Implementation of Automated Systems to Perform Tasks Including: Line Following, Maze Crawling, Identifying and Stacking Objects, and Object Recognition from Video Feed

Projects

Personal projects with which I've been involved

Spring 2017 | **OU Map**
http://www.ouprojects.com/portal/map
Completed

Map of OU buildings and parking lots with quick click detection handled on the backend using a spatial partitioning tree. Contains features for editing the building details including the clickable building polygon on the map.

Fall 2017 | **Music Training App**
No url
Incomplete

Web app that displays/plays sheet music and uses WebAudio Api and Fourier Transforms to read the pitch of the mic and determine accuracy of the user in relation to the music. Currently only features for determining dominant pitch of microphone and parsing MIDI files.

Fall 2015 | **2D Airfoil Analyser**
https://jsbass.oucreate.com/stuff/JavaScript/Aero/JS_Foil.html
Incomplete

Client-side app that uses a Vortex-Panel method to calculate forces on a 2D airfoil. Only graphing library and functions to convert NACA airfoil numbers to cartesian equations. Put on hold for school.