# Contact

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| --- | --- |
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| World | Web Portfolio [jsbass.com](https://jsbass.oucreate.com/) |

# Skills

# 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

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| --- | --- |
| 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

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| --- | --- |
| 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. |

# Awards

|  |  |
| --- | --- |
| Ribbon | AP Scholar with Distinction College Board |
| Ribbon | Science & Engineering Fair US Army Award US Army Research Lab |
| Ribbon | Oklahoma Regents Scholar Oklahoma State Regents for Higher Education |
| Ribbon | OUIT Employee of the Month University of Oklahoma |
| Ribbon | 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. |