JACOB BASS

Contact

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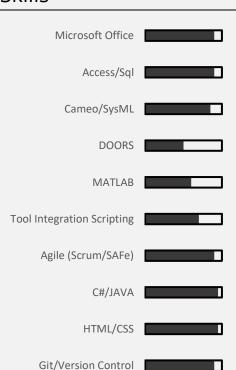918.533.5034

Email
seabass992@gmail.com

Portfolio
jsbass.com
github.com/jsbass

Skills

Microsoft Office	▓▓▓▓▓▓▓▓░
Access/Sql	▓▓▓▓▓▓▓▓░
Cameo/SysML	▓▓▓▓▓▓▓▓░
DOORS	▓▓▓▓░░░░░
MATLAB	▓▓▓▓▓░░░░
Tool Integration Scripting	▓▓▓▓▓▓░░░
Agile (Scrum/SAFe)	▓▓▓▓▓▓▓▓░
C#/JAVA	▓▓▓▓▓▓░░░
HTML/CSS	▓▓▓▓▓▓▓░░
Git/Version Control	▓▓▓▓▓▓▓░░

Education

Sep 2020 – Mar 2021
Architecture and Systems Engineering: Models and Methods to Manage Complex Systems
MIT xPro Certificate Program

Aug 2013 – Aug 2016
Bachelor of Science: Aerospace Engineering
University of Oklahoma
3.0 GPA

Profile

After graduating with an engineering degree, I spent 5 years in the software development world. There I learned a lot about managing customer requirements and desires as well as taking product from conception to completion. Afterwards I transitioned to a systems engineering role. I have found that a software background facilitates abstraction skills as well as enforcing requirements/functionality driven design work which is standard in the systems engineering community. In my systems engineering role, I have focused primarily on technical rigor in our systems model. Additionally, I have emphasized engineering processes as well as functionality and requirements led design work to ensure first time quality and depth of engineering design analysis.

Work

Jun 2020 - Present
The Boeing Company
Systems Engineer

Model-Based Systems Engineer working on the re-engine program for the B-52. Used software experience, to reinforce the Agile/Scrum process and to aid in model development and analysis with Cameo. Contributed to the Cameo scripting community by being a point of contact for technical scripting questions. Converted complex/highly relational Excel data into more traditional relational databases for programs as a means of analyzing and maintaining complex data more reliably.

Sep 2016 - Jun 2020
OU IT – IT Studio
IT Analyst II

Full stack application development. Gained experience working as part of a team in an Agile development process. Involved in tasks including **planning, development**, QA, **deployment**, **reliability**, and **support**.

Experience

Summer 2019
Labradorium
Co-Owner and Primary Developer

In charge of development, systems administration, and UI/UX. Actively involved in product planning as well. Took the product from conception, through requirements and functionality, to a product entering live user testing in an actual classroom environment.

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

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Awards

OUIT Employee of the Month
University of Oklahoma

Science & Engineering Fair US Army Award
US Army Research Lab

Oklahoma Regents Scholar
Oklahoma State Regents for Higher Education

AP Scholar with Distinction
College Board

Physics Journal Club Presenter
University of Tulsa

Experience Cont'd

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.

Projects

Personal projects with which I've been involved. See Github Repository or Website for more details.

Spring 2017 — **OU Map**
https://github.com/jsbass/OUProjects (code only. Rehost eventually).
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. I need to rebuild the database and subsequent connections in order to rehost this application.

Fall 2017 — **Labradorium (Private Source)**
https://www.labradorium.com
Incomplete

Book hosting and auto-grading assignment tools to facilitate learning in the classroom and ease the overhead of teaching large classes. I am one of two co-owners of the company as well as the primary developer and systems administrator.

Fall 2015 — **2D Airfoil Analyzer**
http://jsbass.com/stuff/JavaScript/Aero/JS_Foil.html
Mostly Completed

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. Mostly done.