

Danny Browne

WORK EXPERIENCE

CURRENT, FROM FEB 2011

Research Engineer

Georgia Tech Research Institute

Developer and team leader for systems engineering support and web application development projects. Primary project's web application is a near-real time collaborative interface for executing models and simulations. Framework provides a means to integrate disparate models by mapping all model inputs/outputs to the same understanding of the system of interest. Currently hold Program Manager role; prior held Software Lead. Support other web application development projects for various customers primarily using Django framework and suite of Python and JavaScript libraries.

MAY 2010 – JAN 2011

Graduate Research Assistant

Georgia Tech Research Institute

Conducted research on collaborative CubeSats (10x10x10cm miniature satellites). Developed concept design of CubeSat module for determining orbital parameters and sharing knowledge among a team of satellites. Implement Extended Kalman Filter utilizing GPS measurements to determine satellites' real-time position. In tandem, software calculated the position which other satellites were tracking; a simple messaging protocol was implemented to update partner satellite's position knowledge.

AUG 2009 – MAY 2010

Graduate Teaching Assistant

Georgia Institute of Technology, School of Aerospace Engineering

Taught weekly lecture covering material for Aerospace Systems + Controls laboratory. Assisted undergraduate students during weekly laboratory. Graded laboratory reports and final examination.

AUG 2006 – AUG 2009

Avionics and Systems Engineer Intern

AirTran Airways

Developed internal web application using .NET framework to replace existing paper+fax system. Self-taught technologies including MS SQL Server, .NET framework and VB.NET programming language. System was utilized by maintenance and engineering for tracking aircraft discrepancies and engineering disposition. Integrated with ActiveDirectory to enable electronic signature with corporate credentials.

Developed work instructions for aircraft repairs and modifications based on Boeing Service Letters and Service Bulletins.

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EDUCATION

2012 – PRESENT **Doctor of Philosophy (in progress)**

COMPUTATIONAL SCIENCE
AND ENGINEERING

Georgia Institute of Technology

2009 – 2011 **Master of Science**

COMPUTATIONAL SCIENCE
AND ENGINEERING

Application Area in
Aerospace Engineering
Georgia Institute of Technology

2004 – 2009 **Bachelor of Science**

Cum Laude

Cooperative Plan

AEROSPACE ENGINEERING

Georgia Institute of Technology

RECOGNITION

2013 **Junior Research Excellence Finalist**

Georgia Tech Research Institute

2013 x 2 **Performance Bonus**

Georgia Tech Research Institute

2013 x 2, **Spot Award**

2012, 2011 *Georgia Tech Research Institute*

PROGRAMMING SKILLS

Daily Use PYTHON, Django, MongoDB, MySQL, Git, JavaScript, HTML, Linux, Windows, Office, Atlassian Tools (JIRA, Stash, Confluence)

Significant Experience MatLab, C, C++, MATLAB, VB.NET, OpenMP, MPI, Oracle (SQL), MS SQL Server

Familiarity LISP, JAVA, FORTRAN, C#.NET, Adobe Video Suite

MANAGEMENT EXPERIENCE

Associate Head, Systems Engineering Applications Branch

Georgia Tech Research Institute

Assist management with various administrative tasks including resource allocation, project development and program status-ing. Work with project directors from multiple branches to seek software reuse among projects to improve overall delivered products. Played key role in improving software development practices within organization. Conduct business development seeking new customers and follow-on projects for existing customers.

Program Manager, Framework for Assessing Cost and Technology

Georgia Tech Research Institute

Manage portfolio of projects for customer including systems engineering support, portfolio management and software development. Organize teams of people for different projects to align skill-sets to maximize throughput for customer. Manage budgets, schedules and develop technical artifacts (code, reports, etc.).

CONSULTING EXPERIENCE

Systems Engineering and Web App Development *AAC Engineering*

Provide systems engineering expertise to define requirements and capabilities for development of a tailored web application for internal management and customer interfacing. Conduct QA on other third-party developers. Develop specific application components and capabilities.

REFERENCES

Contact information can be made available upon request.

Dr. Tommer Ender

Chief, Systems Technology Analysis Division, GEORGIA TECH RESEARCH INSTITUTE

Dr. Carlee Bishop

Director for the Professional Masters Degree in Applied Systems Engineering, GEORGIA INSTITUTE OF TECHNOLOGY

Dr. Santiago Balestrini

Senior Research Engineer, GEORGIA TECH RESEARCH INSTITUTE

Mr. Craig Mueller

President, AAC ENGINEERING

Mr. Russell Reed

Fleet Manager, SOUTHWEST AIRLINES

OPEN SOURCE PROJECTS

The following are open source projects which I have, at a minimum, submitted *pull requests* to for bug fixes or improvements.

django-ajax-uploader :: GitHub Project

Improved *MongoDB* storage backend to include helpful metadata in the return.

February 2014

PUBLICATIONS & PRESENTATIONS

CONFERENCE PROCEEDINGS

Enabling Systems Modeling Language Authoring in a Collaborative Web-based Decision Support Tool. Proceedings of the Conference on Systems Engineering Research. Mar 2013.

FACT: An M&S Framework for Systems Engineering. Proceedings of the 2012 Interservice Industry Training, Simulation, and Education Conference. Dec 2012. 12115.

A Standards-Based Modeling and Simulation Enterprise to Support USMC Acquisition. Proceedings of the Simulation Interoperability Workshop. Sept 2012. 12F-SIW-041.

Framework for Assessing Cost and Technology: An Enterprise Strategy for Modeling and Simulation Based Analysis. Proceedings of MODSIM World 2011 Conference and Expo. Sept 2011.

Enabling Collaborative Behavior among CubeSats. Proceedings of 25th Annual AIAA/USU Conference on Small Satellites. Aug 2011. SSC11-VI-9.

CONFERENCE PRESENTATIONS

FACT Enters the DoD Acquisition Process: Amphibious Combat Vehicle Feasibility Study. Proceedings of NDIA's 16th Annual Systems Engineering Conference. October 2013.

Enhancements to FACT for Representing the Marine Air-Ground Task Force for Energy Management Trade Space Exploration. Proceedings of NDIA's 16th Annual Systems Engineering Conference. Oct 2013.

Framework-Assessing-Cost-Technology (FACT): Enabling Systems Engineering as a Web Service. Tutorial at MODSIM World Conference & Expo 2013. May 2013.

FACT: Enabling Systems Engineering as a Web Service. Proceedings of NDIA's 15th Annual Systems Engineering Conference. Oct 2012.