Peter Brandt - Aerospace Software 202-560-0679 peter.m.brandt@gmail.com

Experience

Flight Software Developer - Odyssey Space Research (September 2017 - Present)

- Contributed as a core developer, maintainer, and scrum master for the systems management and fault management teams on Orion
- Responsible for identifying the cause and solutions to issues found during verification
- Wrote code to sync flight computers after a planned or unplanned restart
- Developed a system to check if one flight computer has diverged from the others
- Led a full code review of the current code for five areas
- Wrote python tests to verify software functionality in the presence of simulated faults
- Contributed fixes to the in-house legacy python test framework
- Designed software for network management functions for EM-2, the next mission
- **Overtime side project - NASA's Next-Gen web-based crew interface**
    - Worked overtime to write javascript for the 3D view widgets
    - Expanded the core system API to let developers create new features faster
    - Added a MIDI interface to the mock telemetry system
    - Awarded a "sustained service" recognition by Odyssey for my work

Vice President of Engineering - Kip, kipthis.com (March 2015 - August 2017)

- Built a first-to-market group shopping chatbot that worked on several chat platforms
- The bot was featured on the front page of Slack's app directory, and the effort to be first-to-market led to additional seed-level funding from angel investors world-wide.
- Leveraged advanced web scraping, data warehousing, geospatial and natural language processing techniques using node.js, python, mqtt, docker, AWS, and so much more

Software Developer, FreeFlyer team - a.i. solutions, Inc. (June 2014 - March 2015)

- Wrote and tested new features in C++ for the core FreeFlyer spacecraft simulation suite
- Ported the core C++ FreeFlyer code to Linux (clang) and built .deb and .rpm packages
- Implemented new features for the C#-based FreeFlyer user interface
- Used machine learning techniques to identify causes of FreeFlyer runtime regressions
- Developed the first prototype of Meridian, a web-based ground station for GEO satellite operations built with FreeFlyer, Node.js, C#, Angular, and MongoDB

Software Developer Intern - Odyssey Space Research, Inc. (May 2010 - August 2010)

- Wrote and tested C++ code for the JEOD simulation package
- Found a critical bug relating to coordinate system transformations

Software Developer - S&P Capital IQ (Nov 2011 - Dec 2013)

- Used SQL, C#, ASPX, and JavaScript to create user interfaces which allow fund managers to search terabytes of financial data on companies and individuals

Education

ME Aerospace Engineering - Iowa State University (2011)

- Earned ME under Dr. Ping Lu, specializing in guidance, navigation and control

BS Aerospace Engineering - University of Notre Dame (2009)