JAMES DEFILIPPO

SOFTWARE ENGINEER

SUMMARY

Software engineer with 4+ years of experience in data analysis and programming across the product lifecycle. Strong background in mathematics and algorithms, with acquired knowledge in defense and space system applications. Proven ability to develop new skills quickly and transition between projects.

EXPERIENCE

SOFTWARE ENGINEER

Draper Laboratory, Cambridge, MA / May 2015 – Present

- Prepared unit tests for a mature DoD project in embedded C.
- Designed Python framework for auto-testing legacy software.
- Created and documented object-oriented modernization design proposal for a major department's analysis tools to generalize and expand the functionality of existing software.
- Generated simulation and modeling software to analyze flight trajectories using Kalman filtering algorithms.
- Designed, developed, and tested key components of fault-tolerant flight software for a NASA-sponsored space system project.
- Received Outstanding Contribution Award and subsequent promotion based on performance reviews.

CO-OP PROGRAMMER

IBM, Littleton, MA / June 2014 – Aug 2014

- Designed C++ test cases to ensure full code coverage.
- Became familiar with the company's software lifecycle, working to resolve outstanding PRs and implemented test cases.

CO-OP PROGRAMMER

Putnam Investments, Andover, MA / Jan 2014 – May 2014

- Designed and implemented Python software to automatically update SQL tables with daily changes to employee information.
- Led efforts to create a department-wide version control using GIT.

UNDERGRADUATE RESEARCH ASSISTANT

University of Massachusetts, Lowell, MA / May 2012 – Dec 2013

- Collaborated with a team of students to solve problems in the area of stochastic processes.
- Developed prototype evaluation system in Python to automatically grade submissions in a freshman-level CS course.

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in /in/james-defilippo

LANGUAGES

C/C++
Python
BASH
Matlab
Simulink

TECHNOLOGIES

Linux/Unix
SQL
Git/SVN
Simics/VxWorks

DOMAIN KNOWLEDGE

GN&C
Kalman Filtering
Embedded Systems
Fault Tolerant Design
Accuracy Analysis
Applied Probability
Algorithms

EDUCATION

B.S. / MATHEMATICS
Magna Cum Laude
University of Massachusetts
Lowell, MA
2011 – 2015