

# Jared S. Ivey

## contact

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## website

jaredivey.com

## programming

C, C++, Python,  
MATLAB, Bash,  $\LaTeX$ ,  
Java, PHP, C#, Fortran

## experience

- 2009–Now **577 SOFTWARE MAINTENANCE SQUADRON** Robins AFB, GA  
*Electronics Engineer*
- Subject matter expert in external geographic dataset management and pre- and post-mission data processing tools for the E-8C Joint Surveillance Target Attack Radar System (JSTARS).
  - Communicate as an advisor to other technical leads and integrated product team (IPT) leads both in-house and at Northrop Grumman Aerospace Systems in Melbourne, FL, to improve production quality.
  - Exceed expectations by delivering 100% defect free software products in spite of aggressive delivery schedules and stringent quality measures.
  - Duties include initiating, directing, and coordinating software studies and modifications, resolving complex requirements, and refining new software techniques.
  - Design, implement, functionally test, and review several Software Change Requests (SCRs), Activities, and Software Tracking Requests (STRs).
- 2013–2014 **DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING, GEORGIA TECH** Atlanta, GA  
*Teaching Assistant*
- Provided guidance and assistance for approximately 20 undergraduate students per semester to improve the formatting and appearance of resumes, technical documents, and presentations.
- 2009 **DEPARTMENT OF CHEMICAL ENGINEERING, GEORGIA TECH** Atlanta, GA  
*Computer Assistant*
- Provided computer support to faculty, staff, and students by granting building access, resetting account passwords, replacing printer paper and ink cartridges, and installing software.
  - Coordinated with Dell Support to request replacement computer hardware, installed the components when they arrived, and shipped the nonoperational components to the manufacturer.
  - Aided user account migration from one server network to another by editing users' security permissions, adding computers to the network, and adding network printers to a server.
- 2008 **DEPARTMENT OF BIOMEDICAL ENGINEERING, GEORGIA TECH** Atlanta, GA  
*Teaching Assistant*
- Facilitated and evaluated assessments for over 70 students in a Biotransport class.
- 2007–2008 **SOUTH CENTRAL POOLS** Forest Park, GA  
*Assistant to Operations Manager*
- Performed day-to-day operations including, but not limited to, shipping and receiving of UPS and freight line shipments, inventory control, and order processing.

## education

- 2013–2017 **Ph.D.** in Electrical and Computer Engineering [3.80/4.00] Georgia Institute of Technology  
Research Advisor: Dr. George F. Riley  
Thesis: Validation of Scalable Software-Defined Network Simulations Using Simulation-Based Routing Applications
- 2010–2012 **M.S.E.** in Software Engineering [4.00/4.00] Mercer University  
Minor in Engineering Management
- 2005–2009 **B.S.** in Biomedical Engineering [3.76/4.00] Georgia Institute of Technology  
Summa Cum Laude

## publications

OCT 2017	<b>Advancing Software-Defined Networks: A Survey</b> J. Cox, J. Chung, S. Donovan, <b>J. Ivey</b> , R. Clark, G. Riley, H. Owen, In IEEE Access, vol. PP, no. 99, pp. 1-1.	Online
SEP 2016	<b>Designing and enabling simulation of real-world GPU network applications with ns-3 and DCE</b> <b>J. S. Ivey</b> , G. F. Riley, B. P. Swenson and M. L. Loper, In 2016 IEEE 24th International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS)	London, UK
JUN 2016	<b>Analysis of programming language overhead in DCE</b> <b>J. S. Ivey</b> and G. F. Riley, In Proceedings of the Workshop on ns-3 (WNS3 '16)	Seattle, WA, US
MAY 2016	<b>Comparing a scalable SDN simulation framework built on ns-3 and DCE with existing SDN simulators and emulators</b> <b>J. S. Ivey</b> , H. Yang, C. Zhang, and G. F. Riley, In Proceedings of the 2016 annual ACM Conference on SIGSIM Principles of Advanced Discrete Simulation (SIGSIM-PADS '16)	Banff, AB, CA
MAY 2015	<b>Phold performance of conservative synchronization methods for distributed simulation in ns-3</b> <b>J. S. Ivey</b> , B. P. Swenson, and G. F. Riley, In Proceedings of the 2015 Workshop on ns-3 (WNS3 '15)	Barcelona, ES
DEC 2014	<b>Performance of conservative synchronization methods for complex interconnected campus networks in ns-3</b> B. P. Swenson, <b>J. S. Ivey</b> , and G. F. Riley, In Proceedings of the Winter Simulation Conference 2014	Savannah, GA, US
MAY 2014	<b>Phold performance for distributed network simulation under conservative synchronization methods in ns-3</b> <b>J. S. Ivey</b> , G. F. Riley, and B. P. Swenson, In Proceedings of the 2nd ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (SIGSIM PADS '14)	Denver, CO, US

## certifications

2015	<b>Systems Planning, Research, Development and Engineering</b> Engineering Levels 1 and 2	Defense Acquisition University
2012	<b>Systems Planning, Research, Development and Engineering</b> Science and Technology Manager Levels 1 and 2	Defense Acquisition University
2011	<b>Systems Planning, Research, Development and Engineering</b> Program Systems Engineer Level 1	Defense Acquisition University
2011	<b>Program Management</b> Level 1	Defense Acquisition University
2010	<b>Software Professional Development Program</b> Software Development track	Air Force Institute of Technology

## training

2011	<b>DEF 1013P FalconView Advanced Users</b>	Georgia Tech Research Institute
2011	<b>DEF 1012P Introduction to FalconView Basic Operations</b>	Georgia Tech Research Institute
2010	<b>HE634S HP OpenVMS v8.3 Programming Features</b>	PARSEC Group

## awards

- 11 SEP 2015 **Notable Achievement Award** 577 Software Maintenance Squadron  
Completely overhauled JSTARS design for importing and interfacing with DAFIF data utilizing a SQL-based implementation over the previous XML-based version, enabling access to DAFIF information for the entire world rather than a small subset inside of a defined mission center. As a result of these software changes, JSTARS operators will have the ability to rapidly and accurately locate airfields for tracking or emergency diversion of aircraft as well as to view possible routes for airborne re-planning.
- 27 AUG 2012 **Notable Achievement Award** 577 Software Maintenance Squadron  
Automated a number of operations in the ancillary JSTARS disk replication application. The implemented enhancements provided the users with extremely useful disk replication functionalities that greatly reduced the time required to build mission kits and eliminated the need for operators to use native OS commands.
- 19 MAR 2012 **Time-Off Award** 577 Software Maintenance Squadron  
Provided list sorting capability to several JSTARS tabular displays (TDs) and extended the list updating functionality for each of these commonly used TDs. The users can now sort entities contained in each TD based on the select field, reducing time and effort in navigating and selecting entities and allowing the warfighter more accurate situational awareness of the battlefield.
- 28 JUL 2011 **Notable Achievement Award** 577 Software Maintenance Squadron  
Provided expertise to generate and complete several projects; demonstrated outstanding coordination with Northrop Grumman in completing said projects and became subject matter expert of the JSTARS disk replication application. These efforts ensured the flight would exceed its annual expected software changes for the year.
- FEB 2010 **Employee of the Month** 577 Software Maintenance Squadron  
Delivered the highest number of STRs for the month of February (30% of total 30+ member team production) and engaged in thorough and timely technical reviews of software changes. Assisted the customer in defining clear requirements for an SCR, maintained the workload following several technical discussions with the primary Northrop Grumman subject matter expert, and received an invitation to go TDY to demonstrate technical proficiency. Subsequently delivered 4 complex changes in 2 short TDY weeks, impressing the subject matter expert and inheriting all future workload in that area.

## biography highlights

- APR 2016 **First son Knowles Steven Ivey born at Coliseum Medical Center in Macon, GA**
- MAR 2011 **Married Sloane Oldham Ivey in Orange Beach, AL**
- FEB 2011 **Purchased first home in Lizella, GA**
- MAY 2005 **Graduated from First Presbyterian Day School in Macon, GA**
- NOV 1986 **Born at Houston County Medical Center in Warner Robins, GA**