

MICAH ELLIOT HALTER

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PROFESSIONAL EXPERIENCE

JAN 2016 – PRESENT	Georgia Tech Research Institute – Research Engineer <i>Atlanta, GA.</i> Lead contributor to research projects sponsored by large entities such as DARPA, NIH, and the US Navy Wrote and published conference and journal papers to communicate research findings to the greater research community Contributed and participated in white paper and proposal writing to bring in more funding for new and on-going projects Deliver applied research projects to sponsors such as source code, web applications, and technical reports Used NetFlow data and machine learning in Python and scikit-learn to detect possibly compromised machines on a network based on known blacklists and whitelists of IP addresses Submitted to NIJ crime prediction challenge, predicting crimes in Portland, OR using temporal and geographic features derived from crime statistics and GIS databases
DEC 2018 – PRESENT	Kindred Spirits Atlanta, LLC – Co-Owner <i>Atlanta, GA.</i> Manage infrastructure, logistics, and services for contracted catering events Engage with customers and provide outstanding service to build customer relations and increase company value Maintain and file all necessary legal documents to ensure legitimacy of the business
MAY 2017 – AUG 2017	The Boeing Company – System Administrator Intern <i>Kent, WA.</i> Developed a security auditing tool suite for Red Hat Enterprise Linux 7 to maintain hardened security on servers holding classified material Developed a web application in C#, HTML, and JavaScript to view and analyze network traffic Developed several system administration scripts as needed by team members to complete tasks such as emailing system logs and automatic server backups
MAY 2016 – AUG 2016	The Boeing Company – Software Development Intern <i>North Charleston, SC.</i> Organized and led a software development team of five in a three day coding sprint to create a minimum viable product of a Kanban board web application Pitched the Kanban board prototype to management to form a team to continue development of the application after I left Documented and executed an upgrade plan for the company's identity management servers Developed an Outlook-integrated conference room mapping tool in C#

PROJECTS

SemanticModels.jl

Georgia Tech Research Institute.

A category theory approach to defining metamodeling tasks for representing and composing scientific models

A system for extracting semantic information from scientific code and reconciling it with conceptual descriptions to build a knowledge graph

Actively contribute and maintain this open source project coming out of the Georgia Tech Research Institute sponsored by the Defense Advanced Research Projects Agency (DARPA)

Corsair Database

Georgia Tech Research Institute.

Developed a web application for viewing and analyzing sonar SAS data using Go, Python, and PostgresDB deployed with Docker and Drone.io

Engineered a database for managing scientific experiments to utilize the speed and efficiency of using a rigid relational database, while being flexible enough to handle the changing data requirements of scientific experimentation

PUBLICATIONS

Peer Reviewed Conference Publications

A Compositional Framework for Scientific Model Augmentation, Micah Halter, Christine Herlihy and James Fairbanks, Applied Category Theory, 2019

Under Review Journal Publications

Accelerating Automatic Target Recognition Performance Estimation with a Relational Database for Synthetic Aperture Sonar, James Fairbanks, Micah Halter, Trevor Goodyear, Matthew Jackson, Brian O'Donnell, John Wilcher, Navy Journal of Underwater Research, 2018

EDUCATION

AUG 2015 – MAY 2019	Bachelor of Science in Computer Science <i>Georgia Institute of Technology, Atlanta, GA.</i> Concentration in system architecture and theory Dean's List Fall 2015, Spring 2016, Fall 2016, Fall 2018, Spring 2019
AUG 2017 – DEC 2017	Bachelor of Science in Computer Science <i>Hong Kong University of Science and Technology, Hong Kong.</i> Studied abroad

LANGUAGES & SKILLS

Full Stack Development • System Administration • Database Design and Management
High Performance Computing • Machine Learning • Functional Programming • Agile Development
C/C++, Python, Go, Julia, Java, Scala, Perl, Bash, SQL, MySQL, PostgreSQL, LaTeX, HTML, CSS, JavaScript

COMMUNITY INVOLVEMENT

AUG 2015 –
MAY 2019

Georgia Tech's Men's Ultimate Frisbee

Georgia Institute of Technology.

Balance competitive practice and tournament schedule with rigorous academics

Help with recruitment and teaching new players