

# Kristopher J. Overholt

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Developer Advocate  
Google  
Austin, TX

<https://www.koverholt.com>  
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## Summary of Qualifications

Experience working with data science and data analysis with Python and R.  
Experience working with DevOps tooling, automation, testing, and deployments.  
Academic and industry teaching experience with data science and engineering coursework.  
Applying Python and R to engineering problems, data analysis, and computational models.  
Administration of on-premises and cloud-based Linux systems with Docker, Kubernetes, and Hadoop.

## Education

Ph.D. in Civil Engineering, The University of Texas at Austin, 2013  
M.S. in Fire Protection Engineering, Worcester Polytechnic Institute, 2010  
B.S. in Fire Protection Engineering Technology, University of Houston–Downtown, 2008

## Certifications

Pragmatic Marketing Certified - Level III (PMC-III) - November 2017  
Texas Board of Professional Engineers Certified EIT #40629 - September 2008

## Employment History

Developer Advocate June 2022–Present  
**Google** *Austin, TX*  
Working as a Developer Advocate on Emerging AI Solutions in Google Cloud. Creating technical assets to help developers discover, onboard, and develop solutions in Google Cloud. Developing demos, articles, videos, codelabs, and tutorials for technical workflows in Google Cloud AI solutions, including Document AI, Vertex AI, and Contact Center AI.

Senior Sales Engineer March 2021–May 2022  
**Coiled** *Austin, TX (Remote)*  
Working with prospects to develop reproducible demo assets and documentation for multiple compute backends (AWS, Azure, GCP, Kubernetes). Creating technical content and product marketing collateral for scalable data engineering and distributed machine learning workflows. Developing workflows to capture feedback from users and early adopters and provide market signal and prioritization to the product engineering team. Building out customer-facing resources and technical assets for the discovery, qualification, scoping, and validation stages of the sales pipeline.

Sales and Solutions Engineer

August 2020–March 2021

**Algorithmia**

*Austin, TX (Remote)*

Worked with account executives to execute on customer opportunities and identify/solve pain points in data science and enterprise IT. Scoped technical success criteria and delivered proof of concepts with enterprise customers, including use cases in manufacturing, finance, and retail. Created technical content and product marketing collateral for integrations with external machine learning training platforms, CI/CD systems, and consuming applications. Developed reproducible demo assets and infrastructure-as-code for data analysis pipelines and machine learning use cases in finance, image classification, sentiment analysis, deep learning, and more.

Solutions Engineer

November 2018–July 2020

**RStudio**

*Austin, TX (Remote)*

Worked with customers in pre-sales and post-sales activities to integrate enterprise data science products in production environments with Python and R. Developed technical assets and documentation related to enterprise data science products. Worked closely with customer success, support, and product engineering teams. Specialized in enterprise IT infrastructure and DevOps as well as product integrations with Python, Kubernetes, Slurm, and Spark.

Senior Product Manager / Software Engineer

February 2015–October 2018

**Anaconda**

*Austin, TX*

Worked with customers and users to understand market problems, then formulate and prioritize repeatable solutions in an enterprise data science platform with Python and R. Performed DevOps, automation, and QA testing for data science platform built on Docker and Kubernetes. Developed tools/products to manage Python packages across bare-metal and cloud-based clusters. Managed cluster computing products that integrate Python with Hadoop and Spark. Coordinated with product marketing team to create webinars, demonstrations, and sales collateral. Performed pre-sales activities with customers including product demonstrations and solution architecting.

Fire Protection Engineer / Software Engineer

May 2012–January 2015

**National Institute of Standards and Technology**

*Gaithersburg, MD*

Performed fire model verification and validation work for the US Nuclear Regulatory Commission (NRC) related to empirical correlations and Fire Dynamics Simulator (FDS). Worked with the FDS development team on verification and validation, continuous integration testing, and quality metrics. Conducted fire modeling studies to provide insight on the fire development and thermal conditions during firefighter fatality and injury incidents. Conducted full-scale experimental work related to improving firefighter tactics and safety. Developed sensor-based smart firefighting technology.

Graduate Research Assistant / Software Engineer

January 2010–May 2013

**The University of Texas at Austin**

*Austin, TX*

Research assistant on issues related to fire modeling, inverse fire modeling problems, fire suppression systems in nuclear gloveboxes, firefighter line of duty injuries/deaths, wildland fire experiments and modeling, and positive pressure ventilation experiments and simulations.

## Skills and Coursework

Python / NumPy / SciPy / pandas	R / Shiny / RStudio
Data Science Workflows	Predictive Model Development and Deployment
DevOps, CI/CD, and Automation	Slurm and HPC Clustering Technologies
Terraform, Salt, Ansible	Cloud Infrastructure: AWS / GCP / Azure
scikit-learn / Tensorflow	Visualization: matplotlib / seaborn / ggplot
Docker / Container-Based Workflows	Kubernetes Configuration and Administration
Hadoop Configuration and Administration	Hadoop / Spark / PySpark Data Analysis
Mac OS X / Linux / Windows	Fortran / C++
Django / Flask / WordPress	Solution Architecting / Requirements Gathering
Matlab / LabVIEW	Data Analytics Platforms
Small-Scale and Large-Scale Experiments	NIST Fire Dynamics Simulator
Scientific / Technical Copy Editing	CFAST / BRANZFIRE Zone Models
Scientific / High-Performance Computing	Performance-Based Design
Scientific Visualization & Data Analysis	Fire Dynamics
Instrumentation and Data Collection	Fire Alarm Signaling Systems
L <sup>A</sup> T <sub>E</sub> X	Structural Design for Fire Safety
Computational Fluid Dynamics	Fire Safety and Hazard Recognition
Engineering Mechanics	Building Fire Safety
Heat Transfer	Automatic Fire Suppression
Combustion	Industrial Safety
Thermodynamics	Fire Modeling
Differential Equations	HVAC Design
Incompressible Flow	Indoor Air Quality: Transport and Control
Fluid Mechanics	Human Factors in Fire Safety
Numerical Methods	Human Exposure to Indoor Air Pollution

## Teaching and Tutor Experience

Adjunct Faculty	August 2010–May 2011
Department of Engineering Technology, University of Houston–Downtown	
Courses: Fire Dynamics, Fire Modeling, Structural Fire Safety	
Teaching Assistant	January 2010–May 2010
Department of Mechanical Engineering, The University of Texas at Austin	
Courses: Heat Transfer Lab	
Teaching Assistant	August 2008–December 2009
Department of Fire Protection Engineering, Worcester Polytechnic Institute	
Courses: Fire Dynamics, Fire Protection Systems, Building Fire Safety	
Tutor and Lab Assistant	August 2007–May 2008
Department of Engineering Technology, University of Houston–Downtown	

## Memberships

Member, Society of Fire Protection Engineers, 2004–2015  
Member, National Fire Protection Association, 2014–2015  
Member, International Association for Fire Safety Science, 2011–2015  
President, SFPE UT Student Chapter, 2010–2012  
President, SFPE WPI Student Chapter, 2009  
Founding President, SFPE UHD Student Chapter, 2007

## Honors and Awards

Jack Bono Award for Engineering Communications, Society of Fire Protection Engineers, 2017  
Best Thesis Award “Excellence in Research”, International Association for Fire Safety Science, 2014  
Harry C. Bigglestone Award for Excellence in Communication of Fire Protection Concepts, Fire Technology, National Fire Protection Association, 2013  
Honorable Mention, NSF Graduate Research Fellowship, 2009 & 2010  
2nd place, Combustion Art Competition, 6th U.S. National Combustion Meeting, 2009  
Gerald M. Maatman Fellowship, Kemper Foundation; Fire Science Laboratory, WPI, 2009  
Outstanding Graduate – Safety and Fire Engineering Technology, UHD, 2008  
LS-AMP Outstanding Scholar Award – Highest GPA in Engineering Technology Dept., UHD, 2008  
Brown Foundation Leadership Award – Scholars Academy, UHD, 2007 & 2008  
Hat’s Off Award, Society of Fire Protection Engineers Annual Conference, 2007  
Outstanding Student – Safety and Fire Engineering Technology, UHD, 2006 & 2007  
Louis Stokes Alliance Minority Participation Scholarship, National Science Foundation, 2006  
Red Rose Scholarship, UHD, 2006  
Rookie of the Year, Klein Fire Department, 2002

## Volunteerism

Webmaster Chair, Texas Exes Highland Lakes Chapter; Marble Falls, TX, 2019–Present  
Technology Support Team, St. Peter’s Lutheran Church; Marble Falls, TX, 2019–Present  
President, Overholser Family Association; Lancaster County, PA, 2017–2019  
Webmaster, North Austin Civic Association; Austin, TX, 2010–2013  
Orphanage work, Casa Hogar Douglas; Monterrey, Mexico, January 2007  
Community Involvement Day; UHD, September 2006  
Ed’s Bayou Cleanup; UHD, Spring 2006  
Emergency Disaster Preplanning; Loving and Caring Arms Adult Care Facility, March 2006  
Tactical Suppression Firefighter, Klein Fire Dept. Station 32; Houston, TX, 2002–2005  
Fire alarm system upgrades, Sweetwater Christian School; Houston, TX, 2005