# Kristopher J. Overholt


Senior Sales Engineer
Coiled
Austin, TX (Remote)

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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

Senior Sales Engineer — March 2021–Present
**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.

Graduate Researcher / Software Engineer — May 2011–August 2011

**Southwest Research Institute** — *San Antonio, TX*

Performed data analysis on the project: Reducing Uncertainty of Quantifying the Burning Rate of Upholstered Furniture. Fire modeling and data analysis work for full-scale upholstered furniture fire experiments sponsored by the National Institute of Justice (NIJ). Developed fire model simulations and guidance for the forensic investigation of fire incidents involving upholstered furniture.

Adjunct Faculty — August 2010–May 2011

**University of Houston–Downtown** — *Houston, TX*

Instructor for fire protection engineering courses including Fire Dynamics, Fire Modeling, and Structural Fire Safety in the Fire Protection Engineering Technology program.

## Skills and Coursework

Python / NumPy / SciPy / pandas
Data Science Workflows
DevOps, CI/CD, and Automation
Terraform, Salt, Ansible
scikit-learn / Tensorflow
Docker / Container-Based Workflows
Hadoop Configuration and Administration
Mac OS X / Linux / Windows
Django / Flask / WordPress
Matlab / LabVIEW
Small-Scale and Large-Scale Experiments
Scientific / Technical Copy Editing
Scientific / High-Performance Computing
Scientific Visualization & Data Analysis
Instrumentation and Data Collection
LaTeX
Computational Fluid Dynamics
Engineering Mechanics
Heat Transfer
Combustion
Thermodynamics
Differential Equations
Incompressible Flow
Fluid Mechanics
Numerical Methods

R / Shiny / RStudio
Predictive Model Development and Deployment
Slurm and HPC Clustering Technologies
Cloud Infrastructure: AWS / GCP / Azure
Visualization: matplotlib / seaborn / ggplot
Kubernetes Configuration and Administration
Hadoop / Spark / PySpark Data Analysis
Fortran / C++
Solution Architecting / Requirements Gathering
Data Analytics Platforms
NIST Fire Dynamics Simulator
CFAST / BRANZFIRE Zone Models
Performance-Based Design
Fire Dynamics
Fire Alarm Signaling Systems
Structural Design for Fire Safety
Fire Safety and Hazard Recognition
Building Fire Safety
Automatic Fire Suppression
Industrial Safety
Fire Modeling
HVAC Design
Indoor Air Quality: Transport and Control
Human Factors in Fire Safety
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