CHRISTOPHER TEIXEIRA

PRINCIPAL DATA SCIENTIST
Driving innovation in data science

PROFILE

Experienced Data Scientist with a strong background in statistics, data science, and operations research. Proven track record in leading complex projects for federal agencies, applying advanced analytics to address critical challenges, and responding to proposals. With a strong background in modeling and analytics, I have supported or advised across several federal agencies, research programs, and corporate initiatives.

CONTACT

WEBSITE
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SOCIAL
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EDUCATION

George Mason University – M.S., Operations Research   2008 – 2010
Concentration in Decision Analysis. Lead developer in algorithm design for integer programming for Northern Virginia Softball.

Worcester Polytechnic Institute – B.S., Mathematics   2002 – 2006
Focus in Applied Statistics and Probability. Designed an unbiased measure for defensive production in MLB.
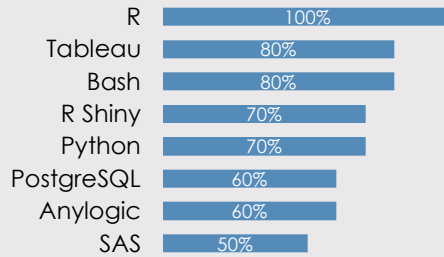
WORK EXPERIENCE

MITRE – Principal Data Scientist   2014 – Present
Serve as a principal technical advisor to federal agencies, leveraging deep expertise in data science, statistics, and data management to collaboratively define problem spaces, articulate complex technical trade-offs, and architect data-driven solutions for high-stakes proposals. Provide technical oversight across multiple concurrent data science projects, ensuring the adoption of sound architectural patterns, robust methodologies, and rigorous quality assurance. This includes leading comprehensive code reviews, championing best practices, and strategically integrating cutting-edge techniques to achieve sponsor outcomes. Cultivate and lead the professional growth of data science staff, providing technical mentorship and guidance on complex project environments. Spearheaded initiatives to enhance team capabilities in areas such as integrating LLM technology into business processes and analyzing new policies to explore their potential impact.

Epsilon – Senior Analytics Consultant   2012 – 2014
Work closely with remote clients (Bank of America, SunTrust) to understand their needs and translate into tasking for team members. Lead small teams to perform various statistical and data analysis studies using a combination of SAS, Netezza, Tableau, R, and Python. Provide division wide support as an integer optimization expert and assisted in business development activities, including writing proposals and initial scoping of projects with clients.

IBM – Advanced Analytics Senior Consultant   2011 – 2012
Work on site with clients (Department of Defense and Aetna), collaborating with other contractors on data analysis projects using SAS products. Support business development activities for federal and private clients and work with contracts to submit proposals.

SAIC – Operations Research Analyst   2006 – 2011
Contribute to multiple projects using my knowledge of mathematics, statistics, and operations research across multiple Federal agencies including NASA, FEMA, and HSARPA.

SKILLS

Skill	Level
R	100%
Tableau	80%
Bash	80%
R Shiny	70%
Python	70%
PostgreSQL	60%
Anylogic	60%
SAS	50%

SIAM VISITING LECTURER

- Story Telling with Data
- When Machine Learning Fails
- Working with Messy Data

AREAS OF EXPERTISE

- Approaches to Modeling and Simulation, including Discrete Event and System Dynamics
- Techniques for visualization of Modeling and Simulation results and communicating uncertainty
- Applications of advanced analytics to support Modeling and Simulation approaches

HOBBIES

Raspberry PI
Home automation
Baseball
Football
Hiking
Camping
Home improvement
Video games

SELECTED PROJECTS

MITRE – IRS – Enterprise Data & Analytics Support May 2024 – May 2025
- **Project Leadership:** Manage a diverse team of 15+ staff to establish an enterprise approach to managing data and analytics.
- **AI Assurance Expertise:** Develop materials to guide AI project teams in assessing accuracy, understandability, and fairness for their applications.
- **Strategic Guidance:** Draft a strategy to use, develop, and ensure trust in AI and Machine Learning applications across the agency.
- **Trusted Advisor:** Support the growth of a new division within the agency, demonstrating expertise in AI and data management, and creating new capabilities for the agency to rely on.

MITRE – IRS – Evolutionary Algorithm Support Sep 2024 – Mar 2025
- **Technical Leadership:** Lead engagements with a team of data scientists to help them understand and utilize an existing code repository focused on simulation using evolutionary algorithms.
- **Data Science:** Provided expertise in working with Jupyter notebooks, general python programming, collaboration using GitHub, using simulation techniques, and exploring the uncertainty within models.

MITRE – TSA – System Modernization Oct 2023 – Feb 2024
- **System Design:** Designed a system architecture to host a web interface and Postgres database that enables the ability to review reports, perform sensitivities analyses, and establish a governance process for sharing information.
- **Rapid Prototyping:** Designed and prototyped a full-stack web application, leveraging Python (Pandas, Flask) to validate technical feasibility and secure future investment.
- **Data Governance:** Outlined a data governance process to accommodate regular data refreshes, data quality checks, and monitor data shifts that could influence downstream calculations.

MITRE – CDC – Data Science Upskilling Oct 2020 – Jun 2023
- **Project Leadership:** Managed a team of 10 staff with varied disciplines and specialties to help over 200 staff at CDC upskill in data science competencies.
- **Competency Identification:** Developed a Data Science competency strategy to enhance CDC staff skills.
- **Technical Advisor:** Provide advice on the data science capstone projects for more than 20 teams that touched on data engineering, statistical analysis, machine learning, and data visualization.

MITRE – COVID-19 Healthcare Coalition Mar 2020 – Sep 2020
- **Weekly Coordination:** Managed weekly presentations, discussions, and projects involving over 100 organizations.
- **Collaborative Analytics:** Facilitated collaborative analytics efforts among organizations, resulting in impactful insights.
- **Diverse Topics:** Coordinated discussions on data sharing, analytical approaches, and innovative visualization techniques.

MITRE – CMS – Opioid Overprescribing Sep 2018 – Sep 2020
- **Project Leadership:** Served as project and technical lead, overseeing management and technical direction of over 30 staff.
- **Data-Driven Analysis:** Utilized statistical methods and machine learning to identify abnormal opioid prescribing habits.
- **Stakeholder Engagement:** Supported the formation of two working groups in New Hampshire to inform and utilize the analytics.
- **Interactive Dashboard:** Developed an interactive dashboard to monitor progress in curbing opioid overprescribing and reduce unintended consequences.