CHRISTOPHER TEIXEIRA

The common theme across my career is using data to explain uncertainty and support decision making across the public sector. Traditionally, this means being able to understand how data was collected and its weaknesses, using data through different algorithms to address challenging questions, and communicating complex results through various visualization techniques.

EDUCATION

2010 | 2008

M.S., Operations Research

George Mason University — Fairfax, VA

- Concentration in Decision Analysis
- Capstone project using Integer Programming

2006 | 2002

B.S., Mathematics

Worcester Polytechnic Institute — Worcester, MA

- Focus in Applied Statistics and Probability
- Capstone project using Factor Analysis, PCA, and logistic regression

INDUSTRY EXPERIENCE

2023 | 2014

Chief Engineer

MITRE — Bedford, MA

- Collaborate with various organizations to understand their problem space, explain tradeoffs between different technical approaches, and translate into acquisition materials.
- Apply expertise across a number of data science, operations research, and statistics applications across domains.
- Design and refine hiring processes for different roles including mentoring staff in growing their technical and management skills.
- Provide oversight across multiple projects to ensure sound technial approaches and adherance to quality assurance processes.

2014 | 2012

Senior Analytics Consultant

Epsilon — Wakefield, MA

- Work closely with remote clients 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 ssisted in business development activities, including writing proposals and initial scoping of projects with clients.

2012 | 2011

Senior Analytics Consultant

IBM — Herndon, VA

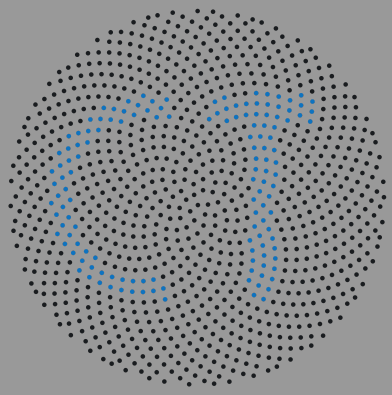
- Work on site with clients, collaborating with other contractors on data analysis projects using SAS products.
- Support business development activities for federal and private clients and work with contracts to submit proposals.

2011 | 2006

Operations Research Analyst

SAIC — McLean, VA

- Contribute to multiple projects using my knowledge of mathematics, statistics, and operations research across multiple Federal agencies including NASA, FEMA, and HSARPA.



Download a PDF of this CV

CONTACT

chris@christopherteixeira.com
CT_Analytics
github.com/ct-analytics
linkedin/in/christopherteixeira
christopherteixeira.com

LANGUAGE SKILLS

- R
- SQL
- Tableau
- Python
- Bash
- AnyLogic
- Java
- SAS
- Javascript

*Made with the R package **pagedown**.*
The source code is available at github.com/ct-analytics/Resume.
Last updated on 2023-01-21.

SELECTED PROJECTS

2023 | 2020

Data Science Upskilling for the CDC

MITRE

- Manage a team of ten data scientists that support CDC's efforts in upskilling staff in data science competencies.
- Advise several data science capstone projects on the use and interpretation of different data science techniques.

2020 | 2017

State Engagement to Address Opioid Overprescribing and Misuse

MITRE

- Manage a team of 30+ staff with a variety of disciplines.
- Met objectives to use analytics to define opioid prescribing behavior, create to working groups to advise and review, and create a framework to measure opioid prescribing.
- Presented a variety of data science applications to state officials.

2020

COVID-19 Healthcare Coalition

MITRE

- Support decision makers in understanding the complexity around the evolving COVID-19 pandemic.
- Lead a small team to use a variety of disparate data sources to explain areas of the United States that were vulnerable to the virus.
- Coordinated over 100 organizations to use the combination of data, technology, and expertise to address a variety of challenges during the pandemic.

2018 | 2016

Predictive Analytics in Child Welfare

MITRE

- Lead 2-3 staff members to help child welfare agencies understand the use of predictive analytics.
- Published 3 papers to support child welfare agencies.
- Completed small analysis to fuse data from various state agencies to do a longitudinal study of foster children.

2017 | 2015

Strategic Workforce Model

MITRE

- Lead an effort to measure and simulate workforce movements with a corporation.
- Modified an initial model in AnyLogic to understand various hiring strategies.
- Built a micro simulation in Python to evaluate a variety of hiring strategies and finance decisions.

2016

Department of Energy Cost and Schedule Tool

MITRE

- Developed a discrete event simulation model capable of performing life cycle cost and schedule analysis.
- This model supports executives that make decisions on alternative strategies which are expected to cost on the order of tens of billions of dollars.
- Recognized for contribution with internal award.

2016

Veteran Benefits Administration Command and Control Model

MITRE

- Understand bottlenecks and other systemic issues to increase system efficiency and simulate them through a browser based tool built on SimJS.
- Utilized Tableau to create a dashboard to summarize the current status of claims.

2015 **Children at Risk Research**

MITRE

- Using analytics to determine risk factors associated with child fatalities.

2015 **Financial Metrics Visual Model**

MITRE

- Using simple modeling techniques to understand impact to corporate finances.

2014 **Real Time Predictive Modeling**

Epsilon

- Design and implement a model to perform real time predictions.

2013 **Sentiment Analysis for Specifc Brands/Products**

Epsilon

- Translating unstructured text to interpret feelings towards a brand.

2012 **Customer Attrition Analysis**

Epsilon

- Worked with team members to build a Bayesian Belief Network (BBN) on large data sources in Netezza to predict the likelihood of a person closing an account with our client.
- I compared the BBN model results against Logistic Regression to determine best modeling approach.

2011 **JIEDDO – Operations Research and Systems Analysis Support**

IBM

- Supporting the warfighter with statistical analysis, data management, and data visualization techniques.

2010 **Healthcare Claims Fraud**

IBM

- Statistical approach to determining regional based fraud in healthcare claims.

2009 | 2006 **Transit Risk and Assessment Methodology**

SAIC

- Served as the data manager for analysis of counter-terrorism defense measures in place for several mass transit systems under the Transit Risk Assessment Module.
- Performed cost-benefit analysis for several jurisdictions using the Risk Management Tool.
- Aided as the cost-benefit analysis specialist during the TRAM workshops.

2009 | 2006 **NASA – Probabilistic Campaign Manifest Analysis Tool**

SAIC

- Updated and expanded the capabilities of this simulation tool to track new metrics and increase the number of Bernoulli trials run within the course of a campaign.
- Effort on this work was acknowledged in the "SEEKING A HUMAN SPACEFLIGHT PROGRAM WORTHY OF A GREAT NATION" report to Congress.

2009

Port Operations Analysis for PNNL

SAIC

- Using AnyLogic to build a combined Discrete Event / Agent Based model to determine the effects of introducing delays to a seaport's operations.
- Build reports given the results of a sensitivity analysis or Monte Carlo run version of the model.
- Compiled an applet version of the model and combined with an HTML interface to supply to the customer.

SELECTED DATA SCIENCE WRITING

2018

Predictive Analytics in Child Welfare: Considerations in Contracting Vendors for Predictive Analytics

MITRE

- This document gives an overview of sections in an RFP that need to be considered carefully when trying to contract a vendor for predictive analytics support.
- Completed through the support of HHS ASPE.

2017

Predictive Analytics In Child Welfare: An Assessment Of Current Efforts, Challenges And Opportunities

MITRE

- This document explores the state of the use of predictive analytics in child welfare by conducting an environmental scan of child welfare agencies, academia, nonprofit organizations, and for-profit vendors.
- Completed through the support of HHS ASPE.

2017

Predictive Analytics in Child Welfare: An Introduction for Administrators and Policy Makers

MITRE

- This document provides an overview of different analytical approaches and goes into a set of criteria that should be used in determining if predictive analytics is the right approach to solving a problem.
- Completed through the support of HHS ASPE.

SELECTED PUBLICATIONS, POSTERS, AND TALKS

2010

Team Organization Senior Softball

George Mason University

- Authored with Trevor Caskey, Lisa Kaiser, Adam Robison.

2006

Statistical Analysis of Defensive Production in Major League Baseball

Worcester Polytechnic Institute

- Authored with Allison Haskins, Alyssa Lopes.

I regularly blog about data science and visualization on my blog christopherteixeira.com