# CHRISTOPHER TEIXEIRA

I have supported a variety of federal and commercial customers over my career. The common theme across my career is adapting data to support decision making amongst my customers. Traditionally, this means being able to understand how it was collected and its weaknesses, adding value through incorporation into a model, and communicating it through a medium incorporating interactive visualizations.



## 🞓 EDUCATION

2010 2008

## M.S., Operations Research

George Mason University

Pairfax. 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

2019 2014

### Principal Data Scientist

**MITRE** 

Pedford, MA

- · Serves in many roles from individual contributor to technical lead and integrator to supervisor.
- · Exhibits expertise in a multitude of areas including technical solutions, communication skills, creativity, and vision to deliver a diverse set of technical solutions across different FFRDCs.
- · Scopes statements of work directly with sponsors, advises on technical approaches for research projects, and supports department staff in developing their technical skills.

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

• Herndon, VA

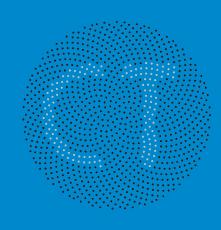
- · Work on site with clients, collaborating with other contractors on data analysis projects using SAS products.
- · Support business development activities for federal and private clients and work with contracts to submit proposals.
- · Collaborate with IBM research to update and translate algorithms into useable products for healthcare sponsor.

2011 2006

## **Operations Research Analyst**

McLean, VA

- · Contribute to multiple projects using my knowledge of mathematics, statistics, and operations research.
- · Lead a small team of interns to develop their skills in programming and operations research.



♣ Download a PDF of this CV

## CONTACT

- **Y** CT\_Analytics
- github.com/ct-analytics
- in linkedin/in/christopherteixeira
- **O** christopherteixeira.com

## LANGUAGE SKILLS

R		
SQL		
Tableau		
Python		
AnyLogic		
Bash		
Java		
SAS		
Javascript (d3.js)		

github.com/ct-analytics/Resume.

# SELECTED PROJECTS

#### 2019 | 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 complex topics including machine learning applications to state officials.

### 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.

## JIEDDO - Operations Research and Systems Analysis Support

**IBM** 

· Supporting the warfighter with data

#### **Healthcare Claims Fraud**

**IBM** 

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

## 7009 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.

## 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 SPACE-FLIGHT PROGRAM WORTHY OF A GREAT NATION" report to Congress.

### **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

# 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.

# 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.

and visualization on my blog christopherteixeira.com

2010

2011

2009 I

2006

2009 | 2006

2009

2018

2017

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.