

Jonathan Nolis

A data science leader with a record of practical solutions for problems in many industries.

Related Experience

- 2016-present **Director / Practice Lead - Insights and Analytics**, *Lenati*, Seattle, WA.
Created and lead a team of seven employees to fulfill the analytics needs across the entire firm.
- Provided analytics guidance to strategic decisions for clients including: Adobe, Microsoft, DSW, and AT&T. Covered areas such as: customer acquisition, retention, and loyalty.
 - Hired and managed junior analytics employees as they did modeling, exploratory data analysis, and reporting in R, Python, and Excel. Techniques used included regressions, clustering algorithms, network analysis and text analysis.
 - Invented a **new tool** for modeling the ROI of a loyalty program by using agent-based simulation on millions of customers under different loyalty program scenarios. Used F#, SQL Server, and R and was hosted on Amazon Web Services.
- 2012-2016 **Lead - Advanced Analytics**, *Promontory Growth and Innovation [formerly Insight Results]*, Seattle, WA.
- Lead a team of seven people to design a new tool for managing critical data on projects with clients. Coordinated between the software developers, user experience designers, and business experts to ensure proper progress and buy-in from stakeholders.
 - Met with C-level executives at client businesses to discuss the potential role of analytics and data science within their companies.
 - Lead a team of four data scientists who used R and Shiny to build statistical models and make interactive tools for exploring data.
 - Used a generalized additive model to improve a client company's cost estimation by modeling bias and variance in estimates, decreasing estimate variability by over 30%.
 - Created websites for displaying analytics using ASP.NET MVC in both C# and F# to integrate with existing company web infrastructure.
- 2010-2012 **Strategy Analysis Specialist**, *The Boeing Company*, Seattle, WA.
- Helped develop the 20-year forecast for air travel and aircraft demand in the Latin America and Oceania regions. Results were published in the *Boeing Current Market Outlook*.
 - Improved the statistical model methodology behind airline passenger demand forecast.
- 2009-2010 **Analyst**, *Vistaprint*, Lexington, MA.
- Optimized sales forecast models used throughout the company as well as implemented new methodologies for analyzing company time series data.
 - Lead a team of five analysts to develop a tool for assessing the health of the company on a daily basis and detecting if core metrics are outside of expected bounds. Tool implemented a seasonal ARIMA model using SQL and SAS with an Excel GUI for marketing to monitor metrics.

Education

- 2014 **PhD**, *Arizona State University*, Industrial Engineering.
Dissertation: *Routing and scheduling of electric and alternative-fuel vehicles*.
- 2009 **Master of Science**, *Worcester Polytechnic Institute*, Applied Mathematics.
- 2007 **Bachelor of Science**, *Worcester Polytechnic Institute*, Mathematical Sciences.

Technical Skills

Strong: F#, R (+Shiny), SQL, Python, C#, Git, Excel, Linux, AWS, Azure, ASP.NET MVC.
Familiar: MATLAB, CPLEX, JavaScript, SAS, Tableau, Power BI, d3, Xamarin.

Publications

- 2016 Adler, J.D., Mirchandani, P.B. [The vehicle scheduling problem for fleets with alternative-fuel vehicles](#), *Transportation Science*.
- 2014 Adler, J.D., Mirchandani, P.B. [Online routing and battery reservations for electric vehicles with swappable batteries](#), *Transportation Research Part B* 70, 285-302.
- 2014 Adler, J.D., Mirchandani, P.B. [The electric vehicle shortest-walk problem with battery exchanges](#), *Networks and Spatial Economics*.
- 2014 Mirchandani, P.B., Adler, J.D., Madsen O.B.G. [New logistical issues in using electric vehicle fleets with battery exchange infrastructure](#), *Procedia - Social and Behavioral Sciences* 108, 3-14.

Awards and Honors

- 2016 Received the **Lenati Values Award** for innovation.
- 2015 Won season 3 of the TBS competitive reality TV show **King of the Nerds**.
- 2014 Awarded **dissertation of the year** in Industrial Engineering department of ASU.
- 2012-2014 Received the **Eisenhower Graduate Fellowship** from the U.S. DoT (×2).
- 2011-2013 Recipient of the **Dean's Fellowship** from Arizona State University.
- 2010 Received the **Analytics Guiding Principle Award** at Vistaprint.
- 2008 Recipient of the **Senior Mathematical Science Major Award** from WPI.

Personal Projects

Gave talks at universities across the country on how to get a job in industry as a mathematics undergraduate student. Presented at locations including: Colorado School of Mines, University of Washington, Brigham Young University, and California State University (Fresno).

Created [Tweet Mashup](#), a website that takes two Twitter accounts and combines their tweets. Received over 500k unique viewers in launch week and was mentioned on new sites including [the Verge](#). Site was built using F# and the Websharper libraries for web development.

Made an assortment of [Twitter bots](#) in F# and Python, including bots that [tweet knuckle tattoos](#), [generate tweets my wife would make](#), and [provide unusual but available domain names](#).