Jasmine M. Daly

Data Science • Machine Learning • Engineering • Statistical Modeling

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About Me

I'm a Senior Data Scientist & Biomedical Engineer who is passionate about developing computational tools & processes to make extracting data insights reproducible & actionable. I have 8 years of experience in several high-tech industries contributing business value by:

- Forecasting edge cloud computing metrics for a global CDN
- Optimizing the onboarding experience for an online bank through experimentation
- Developing machine learning models to predict auto insurance premiums
- Conducting mechanical testing of medical devices for FDA approval
- Leveraging computer-aided design to illustrate jet engine components

Education

DePaul University (Remote)
Graduate Certificate in Analytics   2015 - 2017

University of California, Irvine Extension (Remote)
Certificate in Medical Product Development   2013 - 2013

University of Hartford
Bachelor of Science in Engineering - Biomedical Engineering   2008 - 2012

Data Science Experience

Fastly, Inc.
Senior Data Scientist (Remote)   Aug. 2018 - Present
- Subject matter expert on forecasting edge cloud platform metrics and capital expenditure for all worldwide data centers on the Infrastructure Capacity Planning & Tools team
- Developed an automated forecasting platform including a what-if analysis feature to enable network strategy and supply chain stakeholders to model adding and removing capacity, and increased utilization while incorporating existing build plans
- Developed several automated processes for weekly/monthly/long-term reporting using R, R-Markdown and shiny that provides server utilization insights and augment & site build recommendations
- Advocating for data science best practices through developing an internal R package, creating tutorials/documentation, and participating in data engineering forums

Simple Finance

Data Scientist 2 (Remote)   Oct. 2016 - Aug. 2018
- Lead Data Scientist for the Onboarding product team responsible for: technical mentorship for junior scientists, crafting data product strategy, building ETL data pipelines with APIs, experimentation, reporting and analyzing product feature launches
- Developed an early detection machine learning model to monitor spikes in ACH returns leading to data-informed decisions for mitigating fraud loss
- Developed dynamic dashboards & R software to improve operational efficiency
- Created statistical models for predicting early customer profitability and forecasting cash flow

The Hartford Financial Services

Associate Data Scientist   Apr. 2016 - Oct. 2016
Data Science Internship   Nov. 2015 - Mar. 2016
- Developed machine learning models for auto insurance that improved loss ratio estimates, drove strategic pricing changes and provided insights on competitive position
- Enhanced the personal lines data science group architecture by developing an internal R package, wrote technical documentation and tutorials

University of Connecticut (Institute for Systems Genomics)

Bioinformatics Internship   Sep. 2015 - Jan. 2016
- Computational and command line programming to develop a gene database for the annotation of the Douglas-fir & walnut genome

Google Summer of Code (GSoC)

Student Developer   May 2015 - Aug. 2015
- Developed a web application with r-shiny to automate differential expression and survival analysis of micro-array gene expression datasets from the NIH Gene Expression Omnibus

Engineering Experience

Medtronic (formally Covidien)

R&D Engineering Technician 3   May 2014 - Sept. 2015
- Mechanical product development testing of minimally invasive surgical instruments and components using an Instron (universal testing machine) for design verification, validation, claims development, and 510(k) testing
- Responsible for writing technical testing report summaries using statistical analysis software: MiniTab while providing recommendations to the R&D, Quality, and Manufacturing departments on product failure points
- Lead technician for material property testing of components using Micro-Hardness Equipment (hot mounting, polishing, micro-indentation)
- Custom advanced fixture design & development using Creo (Pro-E)

QDx, Inc. (Abbott Point of care)

R&D Engineering Internship   Jun. 2013 - Jan. 2014

- Analyzed and collected data using MatLab & excel of animal and human specimens CBC (complete blood count) results of an image-based, reagent-free hematology analyzer for clinical evaluation
- Designed experiments leading to recommendations presented to company management with technical presentations
- Performed product feasibility testing of a consumable cartridge component for ergonomics, reagent delivery method, and identifying manufacturing defects using root cause analysis

AdChem Manufacturing Technologies, Inc.

Manufacturing Engineer   May 2012 - May 2013

- Designed 2D & 3D drawings/models with SolidWorks to improve processes and eliminate production error for complex aerospace sheet metal parts for commercial and military jet engines
- Generated NC/CNC programs with TruTops software for a 6-axis press brake leading to increased production output, reduced scrap and greater accuracy – trained additional engineers and operators

Open Source Software

- gramr: Performs grammar checks in R-Markdown documents
- shinyLP: Bootstrap components to make landing home pages for shiny web apps
- ttbbeer: Data package of beer statistics from U.S. Department of the Treasury
- shinyGEO: Shiny app for gene expression analysis, developed during GSoC
- Deep Learning Image Classification App with Keras and r-shiny (project)
- Web scraping tutorial of craft brewery ratings from Beer Advocate (project)

Talks

- "Extending Shiny by Enhancing User Experience with shinyLP" in Providence, RI for the Noreast'R 2018 Conference
- "R, What is it good for? Absolutely Everything" at R User Day at Data Day Texas 2018 in Austin, TX
- "Adventures in Crafting a Data Science Career" at the University of Rhode Island (URI) for the Coastal Institute and RhodyRStats Careers in R speaker series, 2017
- "Extending Shiny by Enhancing User Experience with shinyLP" in Portland, OR for the R User Group, 2017
- "Open Government Data & Beer Analytics" at Open Data Science Conference 2017 in Boston, MA

Teaching

DataCamp.com
Course Instructor & Developer   Sept. 2017 - Apr. 2019
  • Formally under contract to develop a R course titled: 'Building Big Shiny Apps'

Startup Institute and TCB Analytics
Data Science Instructor (Part-time)   Oct. 2017 - Dec. 2017
  • Taught 12 students in 10 weeks with no prior programming experience, introductory R
    Programming topics in: data cleaning, visualization, and dashboard creation in Tableau
    using sports analytics API data

Publications

- (née **Dumas**) **Daly J**, Gargano MA, Dancik GM. shinyGEO: a web-based application
  for analyzing Gene Expression Omnibus datasets. Bioinformatics. 2016 Aug 8.
- (née **Dumas**) **Daly J**, et.al., Feasibility of an electronic stethoscope system for
  monitoring neonatal bowel sounds. Connecticut Medicine, Volume 77, Number 8, pp.
  467-471, September 2013.