Jasmine Dumas

Data Scientist

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About Me

I'm a Data Scientist & Engineer with industry experience in financial technology, auto insurance, medical devices, R&D, and aerospace manufacturing. I'm an active member of the R programming community and have developed **4** open source R packages and participated in **Google Summer of Code, NASA Datanauts, R-Ladies, and R Foundation taskforce: Forwards**.

I'm searching for a **remote-friendly** company that values creativity, diversity and openness as a **lead or Sr. Data Scientist** developing data products & algorithms with R & Python while mentoring junior team members.

Technical Skills

- Computational programming & machine learning with R and Python
- Statistical Analysis and inference
- Data processing & querying with SQL
- Web application development with Shiny and Bootstrap
- Collaborative computing with GitHub and Git

Featured Projects

- Tutorial on Web scraping craft brewery ratings from Beer Advocate with R and import.io
- Shiny app for gene expression analysis for bioinformaticians

Data Science Work Experience

- **Data Scientist 2 at Simple Finance**, (Oct. 2016 - Present)
    - Lead Data Scientist for the Onboarding product team: responsible for technical mentorship, data product strategy, external data integration with APIs and experimentation design and analysis (A/B Testing)
    - Developed an early detection predictive model using **feature selection with Gradient Boosted Models** to monitor spikes in ACH returns leading to data-informed decisions for mitigating fraud loss partnered with the risk team
    - Developed a rapid prototype using `r-shiny` and `flexdashboard` for performing power analysis
    - Modeled causal impact with Bayesian structural **time series techniques** for fraud prevention and product feature launches
- **Associate Data Scientist at The Hartford Financial Services**, (April 2016 - Oct. 2016)
- **Data Science Intern at The Hartford Financial Services**, (Nov. 2015 - March 2016)
    - Research & Implementation of machine learning techniques in **variable reduction and selection** to develop predictive models for auto insurance that improve loss ratio estimates, drive strategic pricing changes and insights on competitive position.
    - Enhancing the team's data science architecture by developing and maintaining an internal **R** package, writing technical documentation and tutorials.
- **Bioinformatics Internship at the University of Connecticut Institute for Systems Genomics (UConn)**, (Sept. 2015 - January 2016)
    - Computational and command line programming to develop a gene database for the annotation of the douglas-fir & walnut genome.
- **Student Developer at Google Summer of Code**, (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

Education

- **Graduate Analytics Certificate Candidate** at DePaul University, (2015 - 2017)
- **Bachelor of Science in Engineering in Biomedical Engineering** at University of Hartford, (2008 - 2012)

Open Source `R` Software

- `gramr`: CLI wrapper for grammar checks in RMarkdown documents
- `ttbbeer`: Data package of beer statistics from U.S. Department of the Treasury (TTB)
- `shinyLP`: Bootstrap Components to make landing home pages for shiny web app
- `shinyGEO`: Shiny app for gene expression analysis

Talks

- Adventures in Crafting a Data Science Career | University of Rhode Island (URI) Coastal Institute and RhodyRStats "Careers in R" speaker series
- Extending Shiny by Enhancing User Experience with shinyLP | Portland, OR R User Group
- Open Government Data & Beer Analytics | Open Data Science Conference 2017 in Boston, MA

Research Publications

- **Dumas J**, Gargano MA, Dancik GM. *shinyGEO: a web-based application for analyzing Gene Expression Omnibus datasets.* Bioinformatics. 2016 Aug 8. | Paper link

- **Dumas 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. | Paper link