

Jasmine Dumas

Data Scientist // Software Developer

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[Open to Relocation or Remote]

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About

I'm seeking to utilize my computational programming & data analysis skills in a position that focuses in Big Data in Genomics and developing analytical software tools for scientists. I value hard work, creativity and openness.

Education

DePaul University 2015 - Present

MS Master of Science - Predictive Analytics / Computational Methods Concentration

- Coursework: Intro to Programming, Data Analytics & Regression, Database Processing for Large-scale Analytics

University of Hartford 2008 - 2012

BSE Bachelor of Science in Engineering - Biomedical Engineering

- Coursework: Engineering Computer Applications, Calculus (1-2, Multivariable), Differential Equations

Experience

Student Developer / **Google Summer of Code / R Project for Statistical Computing** May 2015 - August 2015

- Developed an **web application with R & Shiny** to automate differential expression and survival analysis of microarray gene expression datasets from the NIH Gene Expression Omnibus

R&D Engineering Technician III / **Medtronic** May 2014 - Sept. 2015

- **Statistical analysis & visualization** of mechanical product testing data of surgical instruments to provide insight into product performance and evaluation for FDA submissions
- **Major Accomplishment**: Technical Forum Analytics member uncovering insights in meeting attendance with R scripts

R&D Engineering Intern / **QDx, Inc. (Startup) / Abbott Point-of-Care** June 2013 - January 2014

- **Data Collection, Statistical analysis, and Data Mining** of animal & human specimens CBC (complete blood count) results of an image based, reagent-free hematology analyzer in preparation for clinical trials
- **Major Accomplishment**: Designed an experiment leading to a novel feature enhancement for anticoagulants

Manufacturing Engineer / **AdChem Manufacturing Technologies, Inc.** May 2012 - May 2013

- Developed over 250 manufacturing process methods for complex commercial and military jet engine sheet metal brackets for Pratt & Whitney, using CNC Metrology Software, 3D printing & Solidworks CAD
- **Major Accomplishment**: Developed a new manufacturing method & CAD Model for part identification

Software

GEO-AWS: Gene Expression Omnibus Analysis with Shiny [github.com/jasdumas/GEO-AWS]

Technical Skills

R, ggplot2, Shiny, Bioconductor, Python, Minitab, MS Excel, leaflet.js, MS SQL, JavaScript, HTML, CSS, jQuery, Bootstrap, GitHub/Git, revision/version control, Markdown, OS, Windows

Publication

Dumas, J., Hill, K.M., Adrezin, R.S., Alba, J., Curry, R., Campagna, E., Fernandes, C., Lamba, V., Eisenfeld, L., "Feasibility of an electronic stethoscope system for monitoring neonatal bowel sounds." Connecticut Medicine, Volume 77, Number 8, pp. 467-471, September 2013. [bit.ly/JMD-connmmed]

Posters & Presentations

- Northeast American Society of Engineering Education Conference (Lowell, MA) 2012
[bit.ly/JMD-asee1] [bit.ly/JMD-asee2]
- Neonatal/Perinatal Research Symposium at Connecticut Children's Medical Center, (Hartford, CT) 2012

Research

- Research Assistant / **University of Hartford, Balance Control Laboratory** 2012
- Developed reproducible test methods & developed heuristic algorithms to interpret 2D/3D motion tracking
- Research Assistant / **Connecticut Children's Medical Center** 2012
- Designed a more efficient method of adhesive adherence of a electronic stethoscope for monitoring neonatal bowel sounds, Quantified acoustic sound quality parameters & categorized states of digestion
- Research Assistant & Team Lead / **Life Support & Sustainable Living Program (LSSL)** 2012
- Developed a virtual manufacturing platform with OpenSimulator, and C# for a state-wide recruitment tool

Professional Development

Massive Open-Online Courses: Data Science Specialization (Coursera & Johns Hopkins University), Introduction to Computational Thinking and Data Science (edX & MITx), Web Application Game Development: 2048 [jasdumas.github.io/2048] (Udacity)

Corporate Training Modules: Quality Trainer (minitab.com), SQL Querying (New Horizon Computer Learning Center)

Certificate: Professional Certificate in Medical Product Development (University of California, Irvine Extension, 2013)

Honors & Awards

- Google Summer of Code Program Stipend for the R Project 2015
- NASA - Connecticut Space Grant Award: Senior Design Project Funding 2012
- University of Hartford: Academic President's List, Dean's List 2012

Associations & Community Involvement

- Co-host of R Talk: a podcast about the R Programming language [rtalk.org]
- Bioinformatics Organization, Associate Member
- Python Software Foundation, Basic Member
- Connecticut Predictive Analytics, Meetup.com Group Member
- Epsilon Pi Tau, Honor Society, General Member Inducted in 2012