## Jason Damiani

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## Experience

2018-Present **Data Engineer**, Vituity, Durham, NC.

Full-stack engineer on the Data Operations team at a physician-owned healthcare practice management group

- Retrieved clinical data using API integration and web scraping techniques in Python
- o Developed mobile applications using React Native and the Fast Healthcare Interoperability Resources specification
- Containerized applications with Docker to create development environments and deploy production code

2017–2018 Data Engineer, Citadel, Raleigh, NC.

Supported alternative data initiatives for the fundamental equities businesses at a leading hedge fund

- Developed Apache Spark jobs using the PySpark API to extract, transform, and load vendor big data sets
- o Orchestrated job flows using Apache Airflow which integrated with AWS EMR, AWS S3, Vertica, and SQL Server
- o Asynchronously performed millions of daily HTTP requests to vendor APIs using Python concurrent futures
- Built tooling to wrap internal services providing proxied access to AWS as custom Airflow hooks and operators
- Configured and administered multiple Airflow installations for a large team of data engineers

2015–2017 Data Scientist, Cisco Systems, Research Triangle, NC.

Technical Lead of a data science team within the Operational Architecture organization

- o Optimized the pricing structure charged for loaned demo hardware using a model built with Palisade Evolver
  - Reversed operating budget from deficit to surplus with a net revenue change of roughly \$15 million
- o Developed a methodology to attribute replacement parts to warranty claims across disparate Oracle systems
- Increased order line level matching from roughly 70% to over 99% o Generalized moving data between heterogeneous relational databases in a multithreaded load-balanced pattern
  - Initially implemented in Pentaho Data Integration; redeveloped using the SQLAlchemy ORM in Python
- o Predicted time to close customer support cases using machine learning models trained with scikit-learn in Python
- o Provided mentorship and guidance through technical reviews of team project work and leadership of hackathons
- o Administered PostgreSQL and Microsoft SQL Server installations for a large team of data scientists

2013–2014 Catastrophe Risk Analyst, Insight Catastrophe Group, New York, NY.

Provided decision support services to property insurers

- o Reduced report delivery time by 67% using automated T-SQL scripts, SQL CLR stored procedures, and Python
- o Refactored stored procedures calculating risk analytics to achieve 75% reduction in lines of code and run time
- Analyzed logs to model server traffic as a Poisson Process in order to determine hardware requirements
- Conducted sensitivity analyses on the variable inputs to the AIR CLASIC/2 hurricane model

2012–2013 Technology Analyst, JPMorgan Chase, Tampa, FL.

Java developer on the Electronic Financial Services core distributed platform

2011 Risk IT Intern, Genworth Financial, Richmond, VA.

Mathematically modeled the problem of fitting insurance portfolio loss distributions

- o Implemented a C# module to solve the model using a Quasi Newton method in the Microsoft Solver Foundation API
- Reduced time to fit distributions from hours to seconds and improved shock value accuracy by millions of dollars

## Education

2012 B.S. Industrial and Systems Engineering, University of Florida, Gainesville, FL, 3.8/4.0. Cum Laude

## Projects

PyRaceView. Extracted GPS data from NASCAR RaceView. Reverse engineered a Flash application to decode byte streams from a websocket. Extensive use of NumPy for ctypes, buffers, and bitwise arithmetic. www.github.com/jdamiani27/pyraceview

Scraping Racing Reference. Retrieved, cleaned, and restructured historical NASCAR race results data for analysis using Requests, BeautifulSoup, and Pandas. www.jasondamiani.com/2018/06/05/racing-reference-data.html

Skills

Languages Python, SQL, Javascript

Technologies Apache Spark, Apache Airflow, Hadoop, Excel, Git, React Native, SQL Server, PostgreSQL

Concepts Operations Research, Mathematical Modeling, Machine Learning, Deep Learning