Brian Gillespie

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TECHNOLOGIES AND QUALIFICATIONS

Languages: Python, Java, Javascript, R, C
Data Storage: Relational Databases (MySQL, PostgreSQL), S3, Cassandra
Data Analytics: Spark, Hadoop/Hadoop MapReduce, Pandas, Gensim, NLTK, SciKitLearn
Frameworks: Flask, Spring, Spring-boot
Web: REST APIs, HighCharts, Google Maps API, AngularJS, Jinja2, HTML/CSS, Bootstrap
Cloud: Amazon EC2/EMR/RDS

EDUCATION

Northeastern University, Seattle, WA *Sept. 2014 – Present*
Candidate for Master of Science in Computer Science *(GPA of 3.6)*
Key Coursework: Advanced Software Development, Data Mining, Parallel Programming in MapReduce, Algorithms

The University of Georgia, Athens, GA *Dec. 2013*
Bachelor of Science in Physics, magna cum laude *(GPA of 3.8)*
Honors and Achievements: Recipient of the Charles H. Wheatley Award for Excellence in Physics

TECHNICAL PROJECTS

LDA as a Twitter Hashtag Recommender
https://drive.google.com/file/d/0B3oscaAIAWP4eUJGSXZ4WDRCalk/view?usp=sharing
- Implemented an ETL pipeline that loaded and cleaned data, applied feature reduction methods such as stemming, stop word removal, and TF-IDF, then saved the data locally.
- Applied Latent Dirichlet Allocation to generate a topic model for tweet topics, and queried the model against new tweets to generate hashtag suggestions related to that tweet's topic.
- Utilized a distance measure to evaluate topic similarity between topics trained from multiple working sets

Project Feed 1010: Resources and Networking for Aquaponics Farms
https://www.systemsbiology.org/research/project-feed-1010/
- Spearheaded development of an interactive map page and graph analysis page. Users may explore aquaponics farms around the world and analyze their measurement data. Data can be plotted as trends over time, or against each other.
- Migrated an existing MySQL database into a cloud solution, using Amazon RDS
- Designed RESTful APIs to allow requests for aquaponics system data through the ProjectFeed Web App

Developing a Software Architecture for Healthcare Data Analytics
- Engaged in research developing a software architecture for processing increasingly large Medicare datasets collected by the Centers for Medicare & Medicaid Services as per the Affordable Care Act
- Trained a Naïve Bayes Classifier using spark.mllib, to identify Healthcare Provider Types based on their services rendered
- Implemented a Solr search platform to index data; assisted with creating various UI functionalities with Solr and SolrJ

WORK EXPERIENCE

Northeastern University, Seattle, WA *Jan. 2016 - Present*
ITS HelpDesk Assistant
- Provided IT support to students and staff, and acted as liaison between staff and IT Administrators on Boston campus
- Instrumental in resolving an incompatibility in TLS protocols between Win10 devices and existing networking configuration

Google, Bothell, WA
Visual Data Specialist II *Oct. 2014 - Jan. 2016*
- Provided feedback and suggestions for improving operations policies as well as software interfaces
- Tracked various bugs and wrote up issue reports for them. Provided some debugging to assist Tech teams with quickly identifying causes and potential fixes

UGA - Department of Physics and Astronomy, Athens, GA
Undergraduate Research Assistant *Jun. 2013 – Aug. 2014*
- Researched the Finite Domain Time Dimension (FDTD) method for electrodynamics simulations
- Employed parallel computing methods on and the CUDA C language to increase computation speeds and reduce costs by enabling simulations to be run on smaller, cheaper GPUs