Brian Luc

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EDUCATION

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN
B.S in Computer Science
Expected May 2019 | Urbana, IL
Cum. GPA: 3.96
Dean's List | James Scholar

LINKS

Github:// **bluc41**
LinkedIn:// **brianluc41**
Website:// **brianluc**

COURSEWORK

UNDERGRADUATE

Applied Linear Algebra
Differential Equations
Discrete Math
Systems Programming
Data Structures
Advanced Data Science
Intro to Machine Learning
Artificial Intelligence (FA17)
Probability and Statistics (FA17)

SKILLS

LANGUAGES

Java • Python • JavaScript
Go • C/C++ • Clojure
HTML/CSS • Matlab • SQL

FRAMEWORKS

Node.js • Express.js • Play
Spring • Numpy/Pandas
Enlive • Mocha.js • Chai.js
Mongoose.js • Jooq

DEVOPS

Unix/Bash • Git • Subversion
Docker • Vagrant
SumoLogic

DATABASES

AWS DynamoDB • MySQL
MongoDB

EXPERIENCE

QUALTRICS | Software Engineering Intern
May 2017 - August 2017 | Provo, UT
- Worked on the Target Audience team to design and implement a new Embedded Data Service with better performance and scaling
- Built multiple prototypes, comparing the performance of different data models, data stores, and languages (Go, Java Play, Java Spring)
- Compared different concurrency models in Goroutines + Channels, Completable Futures, Parallel Streams, and Executors to optimize performance
- Used SumoLogic and wrote Python scripts to measure performance
- Was able to achieve up to 15x speedups with Go and DynamoDB compared to original Java Spring + MySQL implementation

RESEARCH

VIDEO AND AUDIO STITCHING | 2017 | Paris Smaragdis
- Analyzing collection of similar music video recordings to extract signal from noise and combine them into a higher quality clip
- Using landmark cross-correlation based on spectrogram peaks for clustering and synchronization of clips
- Will employ some sort of neural network for combination

PROJECTS

PIGGY BANK | BoilerMake 2017 | Top 10 Submissions
- Augmented reality game that helps users set and reinforce good habits
- Users can set goals and accomplish them by collecting location-specific virtual tokens in augmented reality
- Wrote the backend using Node.js, Express.js, Mongoose.js, and Python

TITANIC SURVIVORS | Kaggle 2017
- Kaggle competition to classify Titanic passenger survival
- Explored different methods for data imputation and feature engineering
- Implemented a Stacking classifier with 5 base learners and Gradient Boosting (XGBoost) to achieve 89% accuracy

PREDICTING MARKET BEHAVIOR USING TWITTER | 2017
- Analyzed Twitter sentiment to predict Dow Jones Industrial Average closing values based off of several research papers
- Had to deal with grossly unbalanced dataset, resulting in fairly inaccurate results upon applying classifiers

GRAPEVINE | 2016
- Mobile app that allows users to find and post social events near them
- Worked on RESTful API backend using Node.js, Express.js, and MySQL
- Used Google Places API (reverse geocoding) to cluster user locations into single entities

COOKIE JAR | WildHacks 2016 | Top 10 Submissions
IMC Financial Markets - Best Data Visualization
- Chrome extension that increases user productivity by incurring automatic donations towards charity upon visiting blacklisted websites
- Features Stripe integration, Node/MongoDB backend, D3.js, and multi-factor authentication