Brian Nieves

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Education

Duke University

Bachelor of Science
Expected May 2020 | Durham, NC
Cumulative GPA: 3.64

Major: Computer Science
Minor: Philosophy
Certificate: Decision Science

Skills

Java
Html/css
Python
Git
JavaScript
C

Certifications

Oracle Certified Associate

Java SE7 Programmer

Adobe Certified Associate

Adobe Photoshop CS6
Adobe Dreamweaver CS6

Coursework

Undergraduate

Computer Science
Operating Systems
Software Design & Implementation
Computer Architecture
Data Structures & Algorithms

Mathematics
Probability
Multivariable Calculus
Linear Algebra

Experience

Hound Data Center Diagnostic

Data+ Summer Experience, Continuing Research

Jun 2018 – Current | Duke University

- Employing statistical models to identify the causes of poor performance in a data center, improving upon the Hound algorithm.
- Utilizing Apache Spark to parallelize Hound, allowing it to take advantage of the computing power of the servers it is diagnosing when running.
- Continuing work on the project in a team of 3 other students, including planning for the open sourcing of the code and further publication of our improvements to the Hound algorithm.

Research Assistant | Motivated Memory Lab

Jan 2018 – Current | Duke University

- Developing tasks in HTML/JavaScript that collect various types of data from study participants.
- Hosting the tasks on Amazon Mechanical Turk using the Boto3 Python API for large scale data collection and participant control.
- Discussing scientific methods and proper analysis for task data, with intentions of co-running a study and publishing the results.

VoogaPeaches | Class Project

Nov 2017 – Dec 2017 | Software Design & Implementation

- Developed a Video Game Authoring Environment by working in a team of 9 people using a Scrum framework. Pitched design ideas at team meetings and worked to clarify the team's overall goals.
- Built an object oriented and intuitive user interface using JavaFX while balancing the needs of the backend and controller code.
- Implemented user data which allowed individual users of the program to maintain their own customized workspace, including theme and layout.

Teaching assistant | Computer Architecture

Aug 2017 – Dec 2017 | Duke University

- Led and graded homework for a recitation group of 18 students.
- Reiterated over lecture material and answered questions about recitation assignments.
- Held office hours every week, working individually with students on their projects and understanding of the material.
- Topics included assembly, binary algebra, ALU units, register files, virtual memory, caching, I/O, etc.

Operations Analyst | Toufayan Bakery of Plant City

Jul 2016 – Aug 2016 | Plant City, FL

- Measured and recorded various types of data relating to weights and moisture levels of baked goods such as cookies and bread.
- Visualized recorded data using Excel by creating tables, charts and graphs. Added statistical tests to verify uniformity and adherence to specifications for moisture and weight levels.
- Analyzed down-time data for each of the bakery's conveyor belts by pulling from an Access database to Excel and applying complex formulas to create dynamic reports on causes for down-time for each belt.