Jesse Bartola

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Education

Computer Science, Mathematics (B.S.) 3.92 GPA
University of Massachusetts Amherst *May 2019*

Notable Coursework
Artificial Intelligence, Algorithms, Mobile Health Sensing and Analytics, Operating Systems, Digital Forensics, Software Engineering

Technical Skills

Proficient: Python, Scala, Java, Javascript, HTML, CSS, SQL
Experience: Go, C++, C, iOS (Swift), MongoDB, LaTeX

Job Experience

Software Engineer Intern Google, LLC *5/18 - 8/18*
- Assisted the Site Reliability team in building an AngularJS user interface that extends a command-line tool for their version management software
- Developed a loosely-coupled indexing pipeline in Golang that concurrently streams database updates to a workflow monitoring dashboard
- Engineered mock testing utilities to ensure security credentials are enforced when issuing write queries from remote procedure calls

Scala Web Developer University of Massachusetts *9/17 - 5/18*
- Augmented the existing application website for MS and PhD Computer Science admissions
- Utilized Scala's concurrency model to reduce server request latency by up to 20%
- Optimized Postgres infrastructure by refactoring relational database design patterns

Teaching Assistant University of Massachusetts *9/16 - 5/18*
- Oversaw the curriculum and administration for the Programming Methodology course
- Collaborated with course instructors in teaching concepts derived from the functional programming paradigm using Scala
- Responsible for orchestrating class discussion sections and holding weekly office hours

Software Engineer Intern Charles River Analytics, Inc. *5/17 - 8/17*
- Aided in the full-stack development of a React.js web application designed to detect system hardware failures onboard ships in the Navy
- Formulated Bayesian Network models for hardware fault detection using the Figaro probabilistic programming package for Scala
- Integrated a sandbox environment for testing of observation patterns against classification algorithms to ensure accurate and optimal performance

Independent Projects

Medicus *10/16*
- Led a team of students in engineering an iOS application employing machine learning and image recognition to diagnosis skin conditions within a predetermined confidence interval
- Developed probabilistic models through the use of Clarifai's image recognition API to accommodate the identification of common skin ailments

Honors/Awards

3rd Place **2015 Hack UMASS**
Worked with a team of students in assembling an iOS application through rapid prototyping, utilizing Arduino sensors to monitor multiple sclerosis symptoms in patients