Dominic Balassone

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CAREER OBJECTIVE

Attain a full-time programming and/or design career with a company in need of software engineering and programming experience, where I can focus on creating efficient, error resistant, and user friendly systems, specifically focused on data analytics and visualization.

KEY TECHNICAL SKILLS

- Built websites and APIs using modern Javascript libraries on top of Node.js (Express.js, D3, Socket.io)
- Experience with multiple MVC frameworks (Zend2, Ruby on Rails, Django, Web2Pu)
- Designed and integrating both SQL and NoSQL databases (PostgreSQL, RethinkDB)
- Understanding of Machine Learning and AI, and how to use it in practice
- Comfortable designing and carrying out experiments, as well as analyzing the data from them
- Firm understanding of Agile methodology and SCRUM
- Passion for Graphic Design, from image capture and modification to stylistic presentation

EDUCATION

University of California, Santa Cruz
Cognitive Science BS, Computer Science BA – (2013 -2016)
- Contributor to Smart Energy Disaggregation Systems (SEADS), a NSF funded project
- Research Assistant for Alan Kawamoto's linguistics lab
- 2015 Webmaster for the Cognitive Science Student Association

Castro Valley High School
High School Diploma – (2006 -2010)
- Did experimental research on neutrinos and anti-matter as a TA under Sean Fottrell
- Wired electrical components to built apparatuses for classroom experiments

RELEVANT COURSE WORK

Human Computer Interaction	Psychology of Language	Neural Modeling
Software Engineering	Game Design Experience	Mobile Applications (Android)
Universal Access	Cognitive Neuroscience	Research Methods
Machine Learning	Artificial Intelligence	Game Theory
Assembly Language (MIPS)	Data Structures	Comparative Programming Languages (Haskell)

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PROJECTS

UCSC-PureStorage Real-Time Analytics Heatmap
Lead Designer and Full-Stack Programmer

  • Full stack implementation of a real-time web application for monitoring server diagnostics. Built using Amazon Web Services (S3, Kinesis) and RethinkDB for the backend, connected to a NodeJS server which hosts a D3 heatmap, updated in real-time on the client's browser through Socket.io. Heatmap updates in the browser thousands of times a minute based on data inserted into the database, without delay. The heatmap also reacts to user input and may query the backend for extra data to visualize.

Smart Energy Analysis Disaggregation Systems (SEADS)
Backend Data Analysis and Frontend Visualization

  • Researched and implemented a sliding window algorithm for event detection within a load monitoring system. Once the data was processed by the designed algorithm, it was then returned to the frontend, via a RESTful query, where a D3 time-series graph would update to show where events occurred over time. A D3 visualization of that data was then queriable from the client's browser.

LabRat
http://labrat.pythonanywhere.com/LabRatB

  • Built laboratory productivity web application for distributing tasks among members of team team, including ability to mark-as-complete and archive finished tasks. Worked on SQLite and the Web2Py website design and implementation.

The Touchdown Adventures of the Philae Lander
http://mcfli.itch.io/the-touchdown-adventures-of-the-philae-lander

  • Javascript game developed on the Phaser Game Engine for game design class at UCSC. Contributed to implementation of the physics engine, HUD, level design, and art assets.

PREVIOUS WORK EXPERIENCE

Kuyami
Title: Freelance Web Developer
May 2016 – Now

  • Updated survey pages to be more user friendly, maintained server by monitoring health and managing domains and DNS services through CloudFlare, and integrated the Zend2 framework for easier and more efficient management and deployment of the survey pages.

Tuvalu Salt Company
Title: Freelance Graphic Designer
April 2016 – May 2016

  • Using GIMP, created product advertising tool (specifically a book cover for a gift to investors), which required graphic design and creative writing to implement. Currently in the process of designing a simple eCommerce website for their product.