Jim Vallandingham

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SELECTED PROJECTS

Web Development: Designed and implemented a database driven online bioinformatic resource using Ruby on Rails, which allows for gene relationship visualization and integrates multiple gene and microarray analysis algorithms. Deployed on Mac and Linux platforms.

Software Development: Planned, developed, and released FaceTripper, a novel Cocoa application for the Mac App Store that utilizes face detection technology. Met deadlines and Apple submission requirements to ensure this application's availability during the initial launch of the App Store.

Machine Learning: Utilized neural networks for aerial image classification and experimented with the use of random forests for fast face detection techniques.

EXPERIENCE

Programmer Analyst II 2011 – present

Stowers Institute For Medical Research, Kansas City, Missouri.

- Work with researchers to analyze massive genomic datasets to find answers to basic biological questions.
- Design, develop, and implement software to automate routine data analysis to allow my team to quickly get to interesting and novel questions they have about these datasets.

Software Engineer 2009 – 2011

Garmin International, Olathe, Kansas.

- Led development of a next generation GPS device. Managed a team of 10 developers to ensure deadlines were met and new features were implemented with strict attention to efficiency and code quality.
- Designed and implemented complex new features from start to finish, such as realtime safety camera alerts, a key component driving increased sales in European markets.
- Spearheaded improvements to current development processes including a transition to a modern code repository system and improving code quality through the use of unit tests and continuous integration.

Graduate Teaching Assistant - Programming II 2007 – 2009

EECS Department, University of Kansas, Lawrence, Kansas.

- Wrote, implemented, tested, and graded student projects for a second level linux-based programming and data structures course in C++.
- Formulated and taught lectures to multiple classes of up to 15 students on data structures, algorithms, and general programming concepts.
- Provided assistance to students with logic errors, debugging problems, and other issues.
- Consistently received greater than 4.5 out of 5 in all areas from student satisfaction reviews.

EDUCATION

Master of Science, Computer Science, GPA: 3.8 May 2009

University of Kansas, Lawrence, Kansas.

Bachelor of Science, Biology, GPA: 3.9 May 2005

Pittsburg State University, Pittsburg, Kansas.
Minors: Computing, Chemistry, Physical Science.

SKILLS

Languages: Ruby, C++, Objective-C, C, Java, R, MATLAB, Perl, JavaScript, HTML, CSS.
Tools: Apache, MySQL, SQLite, Eclipse, XCode, Visual Studio, DDD, Git, Subversion, CVS.