

# 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

### Software Engineer

2009 – present

Garmin International, Olathe, Kansas.

- Currently lead developer of a next generation product. Manage a team of 10 developers to ensure deadlines are met and new features are 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.

### Software Developer

2006 – 2007

Academic Research Center, University of Kansas, Lawrence, Kansas.

- Developed and implemented a novel video catalog system based on Open Source software, saving thousands of dollars in maintenance fees as compared to the previous proprietary system.
- Built an online cultural research application, utilized by over 60 students in two countries, using Ruby on Rails.
- Built and maintained Linux servers used for hosting web sites and shared file systems.

## EDUCATION

**Master of Science**, Computer Science, GPA: 3.8  
University of Kansas, Lawrence, Kansas.

May 2009

**Bachelor of Science**, Biology, GPA: 3.9  
Pittsburg State University, Pittsburg, Kansas.  
Minors: Computing, Chemistry, Physical Science.

May 2005

## 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.