

# Patrick G. Klingemann

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## Formal education

B.S., Computer Engineering, May 2004  
Virginia Tech, Blacksburg, Virginia

## Software Development Experience

Jack Russell Software Company  
CareKinesis, Inc.  
Charleston, SC

January 2011 - Present  
Senior Programmer/Analyst

## Projects

**EireneRx** - Medication Management and ePrescribing for the Elderly

January 2011 - Present  
Senior Programmer/Analyst

- Design, develop, test integral modules in a critical patient care application
- Responsible for various core Rails application modules
- Design, develop, test back office processes in Ruby
- Architect browser based applications in Ember.js and Angular.js
- Interface with clients for requirements gathering and design

**CareTransitions** - Patient Care Transition Management

December 2011 - Present  
Lead Developer/Maintainer

- Responsible for all aspects of application lifecycle for a critical patient care application
- Design, develop, test new application modules in Rails
- Refactor, update and maintain existing codebase
- Engineer and implement release management procedures

Medical University of South Carolina (MUSC)  
Office of Biomedical Informatics Services  
Charleston, SC

February 2009 - January 2011  
Senior Systems Analyst

## Projects

**SPARK** - Research Services Management Application

February 2009 - January 2011  
Architect/Lead Developer

- Design, develop, test and maintain Rails applications with complex business logic in an Agile software environment
- Design development team infrastructure, including source control (Git), release management and deployment (Capistrano), bug tracking (Redmine) and Agile Project Management (Pivotal Tracker)
- Mentor junior developers, develop relationships with clients and collaborate with other institutions

**SCResearch.org** - South Carolina Research Studies Directory

June 2010 - December 2010  
Architect/Lead Developer

**Research Toolkit** - MUSC Research Navigation Guide

January 2010 - June 2010  
Architect/Lead Developer

SPAWAR Systems Center Charleston  
Charleston, SC

September 2006 - February 2009  
Computer Engineer

## Projects

**DVDT** - Modeling and Simulation Documentation Web Tool

August 2006 - February 2009  
Architect/Lead Developer

- Generate use cases, choose architecture, and design application based on client requirements
- Design and develop database (MySQL), user interface (HTML, CSS, AJAX), and back-end (Rails)
- Deploy and maintain source control server (Subversion & Trac), development and test environments (databases, web servers, Ruby on Rails environments)

#### EDP - Employee Appraisal Web Application

June 2005 - September 2006  
Developer/Maintainer

- Design, develop, test and deploy upgrades including front-end and database updates (JSP, Struts, MySQL)
- Maintain entire application including web servers (Apache, Tomcat), database, source code (SVN) and customer support

International Business Machines (IBM)  
Business Consulting Services  
Fairfax, VA

June 2004 - June 2005  
Application Developer

### Projects

#### MIP - FEMA – Multi-Hazard Flood Map Modernization

October 2004 - June 2005  
Developer

- Designed and implemented a Portlet (Struts, Hibernate) to allow FEMA users to organize flood map project funding throughout the country for the third release
- Implemented Struts screens for various components including flood map project creation, management and contracting

#### BPS - Military Sealift Command, Budget Preparation System

June 2004 - October 2004  
Developer

- Redesigned ship maintenance module with PL/SQL stored procedures to improve performance
- Supported all phases of the development cycle including requirements gathering, design, development, testing and defect resolution
- Authored various client deliverables including release specifications and transition documents

Virginia Polytechnic Institute and State University (Virginia Tech)  
Bradley Department of Computer Engineering - Bioimaging Systems Laboratory  
Blacksburg, VA

January 2004 - May 2004  
Undergraduate Researcher

### Projects

#### Undergraduate Research - Image reconstruction algorithms

January 2004 - May 2004

- Implemented distance transform, medial axis transform algorithms in C++ for 3D objects
- Applied algorithms to brain tumor modeling for the gamma knife cancer treatment procedure

## Programming Languages

### Ruby

#### Frameworks

- Rails
- Sinatra
- Middleman

#### Testing

- rspec
- cucumber
- capybara

### JavaScript

#### Frameworks

- Ember.js
- Backbone.js
- Angular.js

#### Testing

- Jasmine

#### Libraries

## Persistence

- active\_record
- sequel
- mysql, mysql2
- couchrest\_model
- couchrest

- jQuery
- Underscore.js
- mustache.js
- sugar.js
- Chosen
- jQuery UI

## Miscellaneous

- active\_record
- state\_machine
- devise
- haml
- sass
- active\_scaffold
- rake
- mustache
- will\_paginate
- rabl
- workflow
- cancan
- audited
- rest-client

CoffeeScript    C++    Java    C    Assembly

VHDL    Matlab