Blake Jon Rego

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EDUCATION

Columbia University School of Engineering and Applied Science   **New York, NY**
Bachelor of Science in Applied Physics, minor in Applied Mathematics   *May 2008*

TECHNICAL SUMMARY

I am a technologist specializing in web application development. I am currently most proficient in the asp.NET MVC3 and Ruby on Rails application stacks.

Languages: C#, Ruby, Python, Javascript, CSS, ANSI Common Lisp, C.

EXPERIENCE

Green Charge Networks   **New York, NY**
Software Engineer   Nov. 2011 – Present
Technologies Used: C#, MVC3, Entity Framework, LINQ, MSSQL, Bing Maps, Silverlight, Visual Studio 2010, HTML, Javascript, JQuery, Jenkins (continuous integration).

- Designed and implemented heat map visualization algorithms to view electrical structure loads on map applications for utility companies.
- Spoke with clients bi-weekly to demonstrate progress on our applications, record feedback on existing programs and discuss new feature requests.

Spork Trucks   **New York, NY**
Software Engineer   July 2012 – Present
Technologies Used: Ruby on Rails, Backbone JS, jQuery, Bootstrap

- Created a web application that serves as a food truck ordering system using Ruby on Rails.
- Wrote the authentication and cart ordering services.
- Worked closely with the designer, implementing front-end solutions using JavaScript.
- https://github.com/blakerego/sporkMaps

Advent Software – Tamale RMS   **Boston, MA and New York, NY**
Software Engineer   Aug. 2008 – Oct. 2011
Technologies Used: C#, Microsoft Visual Studio 2003 / 2008, .NET 2.0/3.0, Infragistics, NUnit

- Responsible for the design, implementation and maintenance of the configurable workflow suite for our research management application.
- Principle design and implementation contributions for a template plug-in system for our deposit dialog and new entity modules. Used Model-View-Presenter (MVP) design patterns.
- Major contributions to the persistence mechanisms of configuration data via object serialization to XML.

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LED Software Light Interface
Personal Project

Technologies Used: Python, Numpy, Alsaaudio, Mono, C#, Microsoft Visual Studio 2008, .NET 3.0

- Wrote code to control Color Kinetics lights light arrays over Ethernet using a Phillips PDS-150 power supply. Eight of these light arrays are set up to decoratively illuminate my living room.
- **Audio Controlled Light show** - Using Numpy and Alsaaudio modules, wrote scripts in Python to perform an FFT on .wav files and dynamically change the colors of the lights in the room.
- **Light Controller Desktop Application** – Using C#, I've created a desktop application that allows me to control the state of each of these light arrays via a graphical user interface. Some of the features I've

  implemented include: saving colors, loading colors, dimming, color fades, pulses, "snake," copy light state, paste light state.

University of Pennsylvania - Center for Molecular Modeling- Physics Dept   **Philadelphia, PA**
Undergraduate Researcher   Jun. 2007 – Aug. 2007

Technologies Used: GROMACS, tcl, bash

- Worked on a computational physics problem utilizing molecular dynamic (MD) simulations on the interaction between single walled carbon nanotubes and various biological proteins.
- Coded scripts primarily in a Linux environment using bash and tcl.
- Work led in part to publication (see details below) in the Journal of Physical Chemistry.

PUBLICATIONS

Computational Study of a Nano-Biosensor: A Single-Wall Carbon Nanotube Functionalized with the Coxsackie-Adenovirus Receptor. *(Collaborating Author)*
Journal of Physical Chemistry B. Published 27 Aug 2009.

Precise positioning of carbon nanotubes by ac dielectrophoresis. *(Collaborating Author)*
Journal of Vacuum Science and Technology B. Published 4 Dec 2006.