# Vanessa Roycroft

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### **OBJECTIVE**

To effectively utilize my skills, experience, and education to make a positive impact by working together with fellow team members to design and develop software that fulfills customer requirements and exceeds customer expectations.

## **EDUCATION**

**Bachelor of Science in Computer Science** 

University of Mary Washington

Concentration in Computer Information Systems

**Graduated May 2011** *Fredericksburg, VA* 

#### **EXPERIENCE**

#### **Software Engineer**

Tech Wizards, Inc.

#### January 2011 - Present

King George, VA

- Design, develop, and maintain web pages, most notably an OpenSimulator non-player character command and
  control system using cURL, a videoconference center with 3D model viewer using WebRTC and WebGL, a Linux
  shell trainer using a JavaScript Linux terminal emulator, and a document viewer with annotation capabilities
  using ImageMagick and SVG
- Install, maintain, and manage a Learning Record Store that enables learner activity tracking in virtual worlds and web-based learning environments
- Design and develop web-based learning environments that send learner data to the Learning Record Store via the Experience API
- Write and review technical documents including Software Installation Instructions, Software Users Guides, Project Proposals, and White Papers
- Install, maintain, and manage OpenSimulator virtual world servers on local Windows and Linux machines, as well as on remote Amazon Elastic Compute Cloud instances
- Design and develop scripted 3D content and intelligent non-player characters in OpenSimulator
- Edit the appearance and behavior of 3D models in Blender for upload into OpenSimulator
- Oversee interns creating a video showcasing the company's various projects
- Assist with project demonstrations to customers and key leadership in interested organizations
- Test and perform code reviews on various software components and projects

#### **Application Development Scholar**

May 2010 - July 2010

University of Mary Washington Summer Science Institute

Fredericksburg, VA

- Designed, implemented, and tested an iPhone application with guidance from a Computer Science professor
- Prepared an abstract describing the application
- Formally presented my work to fellow Scholars and professors

# **TECHNICAL SKILLS**

- Languages: PHP, JavaScript, HTML5, CSS, C#, Java, C++, Objective-C, Visual Basic .NET, Python, Linden Scripting Language
- Database Systems: MySQL, PostgreSQL, SQLite, Microsoft SQL Server, Couch DB
- Web Servers: Apache, Node.js, Nginx
- Frameworks: ¡Query, Bootstrap, Experience API, Django, .NET, Cocoa, Cocoa Touch
- Operation System Platforms: Windows, Linux, Mac OS X, iOS
- Integrated Development Environments: NetBeans, Visual Studio, Eclipse, Xcode
- Virtual World Platforms: OpenSimulator, SecondLife, Advanced Distributed Learning Virtual World Sandbox, OpenQwaq
- Web Technologies: WebRTC, WebGL, SVG, Amazon Elastic Compute Cloud
- 3D Graphics Software: Blender, Google SketchUp
- Version Control Systems: Subversion, Git

## **PERSONAL INTERESTS**

- Mobile web app design and development
- Developing and managing my personal website and brother's blog dedicated to tropical landscaping
- Snowboarding, running, kayaking, and playing guitar

# **REFERENCES**

**Kenneth Allwine** 

Senior Software Engineer Tech Wizards, Inc. 17002 Dahlgren Road King George, VA 22485 Colleague

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Ken Clark

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