**Andrew Good**

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**OBJECTIVE:**  Computer Applications Software Engineering or Web Development

**EDUCATION:**

2015MS / Computer Science GPA 4.0 Johns Hopkins Univ., Baltimore, MD

2008 MS / Civil Engineering GPA 4.0 UC –Univ. of California, Irvine, CA

**SKILLS SUMMARY:**

C/C++, Java, Python, SQL

Javascript, jQuery / jQueryUI, DHTMLX, Prototype

AJAX, HTML5, CSS

User Interface, Database Query, Web Client-Server Development

Unix, Linux, Cygwin, Android, Windows, Cygwin

Computer Vision

Autodesk Product APIs

**CORE COMPETENCIES:**

* Ability in web client-server programming, database queries, user interface and computer vision.
* Ability to perform multi-dimensional data analysis, algorithm development, augmentation of existing complex software and user interfaces.
* Ability to work with multiple languages, environments and platforms.
* Outstanding analytical skills regarding data, scheduling, costing, and resource optimization.
* Strong oral, written, and presentation skills.
* Team player with excellent collaboration skills with management and the working teams in assessing plans and improving existing software tools .
* Self-starter who is able to attend to details, attain goals and adapt to fast-paced environments.

**WORK EXPERIENCE:**

**2015 – Present: Software Engineer, Self Employed** ([*A Good Development LLC*](http://agooddev.com))

* Worked with [Montage Project](http://agooddev.com/about_mViewer.html) at Caltech (NSF-funded) to wrap their astronomical image processing and visualization software with Python and an interactive, browser-based GUI.
* Building a GUI framework for interacting with [SQLite](http://agooddev.com/about_TblView.html) databases (also in support of science use).

**2014 – 2015: Independent Projects in Graduate School at Johns Hopkins Univ.**

* **Python Computer Vision Displacement Mapper**
* Designed and implemented a Python utility for the OpenCV computer vision system for parameterized displacement mapping.
* **Client/Server Multi-User Web Application**
* Used a LINUX server-based custom DBMS to maintain state and rules, and used JavaScript/HTML5 client code for animation/interaction.
* Implemented an interactive, web-based version of the classic Clue multi-player board game.
* **Android Cell Phone Real-Time Game**
* Created an end-user rolling ball maze game software application for the Android platform.
* Measured gravity and device acceleration and used in the model in real time.

**2009 – Present: Instructor, Mathnasium, Pasadena, CA**

* Delivered private tutoring to students in grades K-14 in a nationally-franchised academic center. Specialized in higher mathematics, such as linear algebra and calculus.
* Utilized superb communication skills with all stakeholders, including supervisors, peers, students, parents, and the larger community.
* Collaborated with younger instructors in training them and assisting them with difficult assignments and varied aspects of their jobs to successfully meet academic goals.

**2008 – 2009: Structural Designer, Tetra Tech, Pasadena, CA**

* Worked on various engineering projects in Orange County, CA.
* Collaborated closely with multi-disciplinary teams on projects involving my work, sharing design calculations and drafting details.
* Designed reinforced concrete structures for the Irvine Ranch Water District’s Michelson Water Recycling Plant, which involved about 6 months of collaboration with other structural designers in the Irvine Office of Tetra Tech.
* Coordinated daily with architectural team in meeting project completion goals.
* Contributed calculations to secondary structures, such as walkways, retaining walls, fountains, drainage basins, and foundations.
* Drafted various steel and reinforced concrete structures using 3D visualization, calculations, and specifications, as well as Autodesk.

**2008 – 2008: Independent Project while at UC Graduate School for Civil Engineering**

* Master’s Thesis involved writing the software and building hardware to process in real-time vibrational data monitoring the structural health of large buildings.
* Windows-based Visual C code, including software emulator of oscilloscope interface for visual monitoring.
* Involved constructing sensor / A/D interface hardware and packaging system into compact, deployable form.
* Expanded on an undergraduate project using neural networks to analyze vibrational data to detect weakening / failures in structural integrity (buildings, bridges, *etc.*)

**WORK EXPERIENCE SUMMARY:**

* **2015 – Present:** Software Engineer, Self Employed ([*A Good Development LLC*](http://agooddev.com))
* **2013 - 2015:** Independent Computer projects while doing graduate school studies in CS
* **2009 – Present:** Math Instructor, Mathnasium, Pasadena, CA
* **2008 – 2009:**  Structural Designer, Tetra Tech, Pasadena, CA
* **2008 – 2008:** Independent Engineering project while at graduate school for Civil Engineering

**PERSONAL INTERESTS:**

* Strong believer in the value of education. Enjoy helping young people learn technical skills for their future careers. Tutoring work is more of a hobby than a job; everyone should learn to enjoy math!
* Art. Specific interests are drawing, sculpting, and animal photography.