

# Larry Ramey

Berthoud, CO - Email me on Indeed: [indeed.com/r/Larry-Ramey/ca387d7242978da7](https://www.indeed.com/r/Larry-Ramey/ca387d7242978da7)

Willing to relocate: Anywhere

Authorized to work in the US for any employer

## WORK EXPERIENCE

### Software Engineer

Simpson Strongtie - Boulder, CO - 2015 to Present

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Refactored and fixed bugs on truss simulation software. Redesigned 1.0 OpenGL code to 4.3 standards. Proposed and added color tables to enable color blind users to be able to differentiate between different colors in our program. Worked in a distributed team using agile and TDD. Interfaced with Civil Engineers to ensure simulation code met building code for various Countries and States.

### Software Engineer

DirectTV - Denver, CO - 2015 to 2015

at DirectTV. Backend development and database design for a web based system to automate bringup and tear down of VMs. MySQL based database, JSON data transfer, Enterprise environment. Set up development environments for other developers, managed web servers. Used Perl

### Software Engineer for Bloomberg LLP in NYC

Enki Consulting - Berthoud, CO - 2013 to 2014

Parsed financial data, wrote gtests and robot tests. Worked with RESTful APIs, staged code through dev, beta, and production servers for a massive 24/7 client facing organization. Evaluated Hadoop for ftp/sftp log files, proposed that we go with splunk instead; implemented splunk solution. Familiar with Apache Hadoop. Used C++/Perl/Python

### Software Engineer

Fort Collins, CO - 2012 to 2013

that worked on a custom version of Remote Desktop. Massively parallel program that used H264 or DivX to view a high end rendering workstation's output on a thin client/tablet. Used C++

### Software Engineer

Qualcomm - Boulder, CO - 2011 to 2012

that worked on autobuild and autotest environments. Worked mostly with perl and python scripts, placing test suites on prototype hardware and then collating results for display on an internal webserver. Developed Qt programs to parse and display debug data from the graphics driver. Used C++/Perl/Python

### Software Engineer

National Renewable Energy Laboratory - Golden, CO - 2010 to 2011

hired to implement GUIs for a large energy simulation program. Profiled slow downs and refactored code in some cases improving the code from  $O(n^4)$  to  $O(\log(n)*n)$ . Used Qt and Boost extensively. Helped to refactor code in a more easily maintained way, instead of a way that conformed to how building scientists thought about the process but was impossible to extend. Used C++/Ruby

## Full time work

Realtime Technologies - Detroit, MI - 2004 to 2009

Software Engineer for a vehicle simulation company entrusted with producing simulations of automotive designs for a variety of motor vehicle companies and the United States military. Used C++, OpenGL, and SGI-Performer for software design and implementation on SGI, Windows, and Linux platforms. Manage and mentor one student intern.

Key Projects and Achievements:

- Recruited for strong expertise in modern design codes and core programming knowledge.
- Developed an interface to the WAGO PLCs so that hardware interface could be configured with an XML file instead of custom code for each simulator we deployed.
- Traveled to MSU to deploy the WTI driving simulator. <http://www.montana.edu/cpa/news/nwview.php?article=6491>
- Completed a \$750,000 Interactive Vehicle Modeler SBIR Phase II project designed to radically speed-up the visualization of TACOM's vehicle dynamic files while providing a portable file format (VRML); project successfully completed
- Won a \$750,00 bid for the multi-year Interactive Vehicle Modeler Phase II by providing the ability to view dynamic runs as a VRML file on various hardware devices during the SBIR Phase I of the Interactive Vehicle Modeler project;
- Improved operational efficiency by taking the initiative to redesign company's build system. Efforts created a formal software process and a smoother operation and a large time savings for developers.

Used C++/Python

## **Software Engineer**

VRCO / Digital Environmental Solutions - Virginia Beach, VA - 1998 to 2004

for a 20 employee scientific visualization and virtual reality company that renders data for the military, scientists in the Atmospheric and Oceanography fields, and high profile labs such as NASA-Langley, NRL, NOAA, and NAV-SEA. Collaborated on a team of five to analyze and implement various designs that were developed by the Chief Architect.

Key Projects and Achievements:

- Implemented a Runge-Kutta particle trajectory calculation algorithm which provided clients with the ability to view fluid flow.
- Implemented various 3-D interpolation algorithms including a Delaunay Tetrahedralization of point cloud data
- Selected to travel to Japan to Support Trace-P, a project that has resulted in accolades from both NASA and the scientists involved.
- Was the chief graphical programmer for VRCO, developing the visualizations and statistical methods. Used OpenGL, Performer, Inventor, and VTK.

Used C++/Python/Tcl

## **EDUCATION**

### **Bachelor of Science in Physics**

Old Dominion University - Norfolk, VA  
2000

## **SKILLS**

C++ (10+ years), PYTHON (10+ years), OPEN GL (10+ years), OPENGL (10+ years), LINUX (10+ years)

## LINKS

<http://www.montana.edu/cpa/news/nwview.php?article=6491>

## ADDITIONAL INFORMATION

### TECHNICAL COMPETENCIES

Operating Systems: SGI-Irix, Linux, Windows, Sun Solaris, AIX

Languages: C++, C, IDL, Python, Perl, some C#

Methodologies: Object Oriented Programming

Software: OpenGL, SGI-Performer, OpenInventor, Boost, STL, Qt, Splunk

Hardware: Intel/AMD, Sun, HP, SGI, WAGO (a type of PLC)

Tools: UML, Purify, CVS/SVN/git, Qt-Creator