

2010 West Loop, Apt D  
Austin, TX 78758

# Andy Edwards

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<http://helloandy.xyz>

- Experience*
- Volunteer**, Bioschafhof Elpons (Bildein, Austria) Oct 2014  
to Dec 2014
- Helped raise sheep and poultry on a WWOOF farm (WorldWide Organization of Organic Farms) in Austria to practice speaking German
- Software Engineer**, Charles Schwab Corp Feb 2013  
to Sep 2014
- Implemented new multi-leg options trading GUI for StreetSmart.com Java Applet
  - Solved difficult Swing issues
  - Developed efficient multi-leg strategy algorithms that overcame performance problems
  - Discovered and fixed errors in the pre-existing gain/loss calculations
  - Created a console for debugging communication with the server
  - Created a Swing debugging tool (like Swing Explorer, but lightweight)
  - Implemented automated GUI tests
- Software Engineer**, Pason Systems USA Corp June 2009  
to Feb 2013
- Used Swing and Java3D to develop the *Advanced 3D* well/seismic data visualization plugin for *Enhanced Live Rig View*
  - Conceived and implemented *GeoCalc SPE*, a novel Geosteering application, with elegant custom plotting in Swing
  - Designed mesh interpolation, extrapolation, and splitting algorithms for processing seismic surfaces
- Education*
- The University of Texas at Austin** Fall 2005  
BS Computer Science, BS Architectural Studies to Spring 2011  
**GPA: 3.77**
- Other Projects*
- *Breakout*: a 3D cave survey vizualizer, using JOGL (ongoing)
  - *Critters*: implemented a clone of a "Critters" game from my Data Structures class, and designed and implemented a visual critter programming language to teach students at Citizen Schools.
  - *Jhrome*: a Swing library for animated Google Chrome-style tabs
  - *nSIGHT*: a Java/Swing library that draws higher-dimensional objects.
  - Implemented a user level thread library and a reliable filesystem for Operating Systems class, using C++.
  - *ROAR4Rhino*: a sound raytracer plugin (in C#) for McNeel Rhinoceros to simulate the propagation of sound in Rhino 3D models for an architecture design project.
  - Taught a friend with no programming experience to write and debug RhinoScripts that automated 3D modeling for his architectural design project.
- Programming Languages*
- Experience:** Java · Swing · Java Reflection · Java3D · OpenGL · Concurrency · C/C++ · C# · .NET Framework · Perl · Linux Shell Scripting · HTML/CSS · XML
- Exposure:** JavaScript · SQL · PHP · Python · Parser Generators · Verilog

<i>Human Languages</i>	I can speak German decently, if not fluently.	
<i>Honors</i>	<b>President's Volunteer Service Award</b> For volunteering at Citizen Schools two semesters in a row	Spring 2013
	<b>Innovation Day winner, Pason System USA Corp</b> for prototype <i>GeoCalc SPE / eLRV Advanced 3D</i> integration	Fall 2012
	<b>UT School of Architecture Design Excellence Award</b>	Spring 2008
	<b>National Merit Finalist</b>	2005
<i>Activities</i>	<b>Underground Texas Grotto/Detroit Urban Grotto</b> Cave exploration and surveying	Fall 2010–Present
<i>Community Service</i>	<b>Citizen Schools</b> Taught a video game design course to middle school students	Spring, Fall 2012