

**Daniel Krol**  
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**Objective:** To find creative ways to use computers to help simplify and organize our lives.

## Work History

- **Contractor** Nov. 2009 - Dec. 2009  
Reusable Bags Chicago, IL
  - Site bug fixes/updates in PHP/SQL
  - Script to update transaction statuses for missed Paypal transactions, PHP
  - Shipping house entry form using JS/Jquery and PHP/Zend Framework
- **Software Engineer** Feb. 2006 - Present  
Oracle (formerly Stellent) Chicago, IL
  - Bug fixes and general maintenance for spreadsheet file parsers for Outside In, in C
  - Implemented features for spreadsheet file parsers for Outside In, in C
- **Temporary Position: In House Software Development** Jun. 2005 - Nov. 2005  
Metal Treaters Inc. St. Paul, MN
  - Developed a timer display board for industrial ovens, including Requirements Gathering, Design, Implementation in Visual Basic .NET, and Validation/Support
- **Summer Internship** Jun. 2003 - Aug. 2003  
Identix, Inc. Eden Prairie, MN
  - Hardware quality testing for BioLogon project
  - Updated internal technical documentation for IBIS project testing procedure
  - Bug testing for firmware and software interfaces

## Projects

- **Django Website: argumentclinic.net** An experimental debate site in progress. Includes debates, sub-debates, and debate proposals. See "about" section for details. So far has had a handful of active users.
- **Industrial Oven Schedule Display** Created for Metal Treaters Inc. Input, conveniently display, and give alerts for removal times for items in a series of metal treating ovens. Gathered requirements from shop manager and employees, designed, implemented in VB .NET. Currently in use at MTI, St. Paul MN.
- **Client Side Development on Entrepreneurial Project** Was one of two people on the client development side of SkyBlue Mobile, an entrepreneurial project to create a cell phone application to deliver personalized real-time data to a phone's idle screen. Was major part of client side design, coordinated with server side team, developed in Blackberry J2ME. Team was awarded by WINBC for its innovation at the CTIA conference 2005 at New Orleans.
- **Robot with speech recognition** Responsible for project software design and implementation, including two micro-controllers (in C) and interfacing them with a custom serial connection. 3rd place in Communications, Education, & Government track on IPRO Day, and winner of IIT's Enpro Challenge in Fall 2004.

- **2D Game Demo/Engine** Developed a preliminary version of a 2D game, Differential Equation Munchers, using Python and Pygame. Game is fully functional, including a start menu. This game uses an incomplete version of a 2D game engine I am writing. Source available upon request.
- **3D Wireframe Pong** Developed a 3D Wireframe Pong-style game with stereoscopic vision using 3D glasses. Developed using C and Windows GDI. Binary available upon request.
- **RSS Aggregator** RSS Aggregator written in Python that simply downloads the files from the streams specified, and saves them in specified directories. No user interface, designed to work automatically. Source available upon request.
- **Modular Synthesizer (Moog Type), C++** Object oriented model of synthesizer components (oscillators, LFOs, envelopes, etc.). Unlimited creation and connection of components, output to wave file.
- **8 by 8 SRAM Layout** Designed using Magic, a VLSI layout editor. Was used as part of a group CPU design project.
- **Command-Line Debugger for Motorola 68000 processor** Developed command interpreter in assembly on a 68000 system that performed debugging operations and handled exceptions. (analogous to Motorola's TUTOR)

## Skills

**Languages:** C, C++, Python, HTML, XML, CSS, PHP, Visual Basic

**Operating Systems:** Linux (Ubuntu, Gentoo, Arch)

**Other:** Django, GUI development, Robotics, File format parsing

## Education

- **Illinois Institute Of Technology** Chicago, IL  
 • B.S., Computer Engineering, 2001-2005

## Misc

**Interests/Activities:** Personal programming projects, Collecting old video games, Juggling, Biking, Chicago GNU/Linux User's Group, Free and Open Source Software