

Michael Aaron Fogleman
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EDUCATION

North Carolina State University
BS Computer Science, May 2005, 3.6 GPA
Cooperative Education Program, University Scholars Program, Magna Cum Laude

PRIMARY LANGUAGES AND TECHNOLOGIES

Python, C, Java, Objective-C, SQL, HTML, CSS, JavaScript

EXPERIENCE

Software Developer at Advanced Liquid Logic (August 2008 - Current)

- Developed the Assay Development Environment (ADE), an application that...
 - Allows users to create assay protocols by building drag-and-drop flow-charts instead of writing code.
 - Is used daily by dozens of co-workers to develop, simulate and run experiments on lab instruments.
 - Includes sophisticated algorithms for compiling diagrams into runnable code, synchronizing droplet operations, compressing programs, visualizing simulations, etc.
 - Was pretty much the coolest software I've ever created in the workplace.
- Developed Spot Logic, an application that...
 - Is the software portion of a product used to screen newborns for several genetic diseases.
 - Was deployed in the state of Illinois for newborn screening.
- Developed a touch screen user interface for a medical diagnostic instrument.
- Developed an application that utilized an XYZ stage and a USB camera to optically validate cartridges manufactured in-house.
- Developed a web application for tracking instrument and cartridge usage.
- Developed a web application for managing product keys for activating our software.

Software Architect and Project Manager at TopCoder (July 2005 - May 2008)

- Developed the grammar for a proprietary scripting language and designed the software to parse, validate and interpret these scripts in both live and historical stock market contexts.
- Designed a virtual trade engine to simulate order executions by processing stock market feeds and a real-market trade engine to forward orders to live exchanges.
- Developed several utility applications including:
 - Software to monitor systems and email administrators in the event of failures.
 - Software to generate statistical and administrative reports and charts.
- Optimized database tables and procedures as necessary to improve performance.
- Designed a web-based survey application.
- Developed an internal tool for tracking upcoming TopCoder competitions.

Programmer (Co-op) at IBM (January 2004 – June 2005)

- Designed and developed a flexible software framework to reduce the time and effort required to create industrial automation solutions.

- Built a simulated oil pipeline to visually demonstrate the capabilities of our platform.
- Received an individual evaluation of "Outstanding" after completing the Extreme Blue internship program.
- Developed a web-based app for monitoring traffic on a topic-based messaging framework.
- Developed and tested an AOL "channel adapter" using the TOC protocol to enable the INS product to send notifications to instant messenger users.
- Developed software on top of IBM's evolving RFID platform which was heavily influenced by the results of my prior Extreme Blue project.
- Implemented a "Dock Door Receiving" demo to showcase IBM's RFID platform.
- Created an interactive, SWT-based user interface for the demonstration.
- Developed a servlet-driven webpage for ordering new inventory from a virtual distribution company for the demonstration.
- Helped create an application using the Eclipse RCP framework for viewing virtual inventory and shipments for the demonstration.

Programmer (Co-op) at REM Services (January 2002 – August 2003)

- Developed a web page to display real-time weather data collected on-site.
- Developed COM-based software to retrieve data from the DeltaV process control system for use in other software.
- Developed Pocket PC software to assist execution of hardware test procedures.
- Designed and developed software to wirelessly integrate Pocket PC devices with DeltaV systems, allowing operators to access data previously available only on desktops.
- Developed software to generate documentation from DeltaV configuration files.
- Developed a website to showcase in-house software and demos.

SELECT PERSONAL PROJECTS

- Feed Notifier: <http://www.feednotifier.com/> (Python)
RSS system tray notifier for Windows with thousands of happy users.
- Star Rocket: <http://www.star-rocket.com/> (Objective-C, Python)
Space-themed, collect-the-stars game for the iPhone with over 100 levels.
- Word Impostors: <http://www.wordimpostors.com/> (Python, C)
Online word game that tests your vocabulary in a unique way.
- Fogle's Fotos: <http://www.foglesfotos.com/> (Python, Django)
Photoblog web application with a clean user interface.
- Word Warrior: <http://www.michaelfogleman.com/projects/word-warrior/> (Java)
Sophisticated Scrabble client for online and offline play.
- Dr. Mario: <http://www.michaelfogleman.com/projects/dr-mario/> (Python)
Game clone including AI.