

GABRIEL M. BEDDINGFIELD

609 W OAK ST — WYLIE, TX 75098
MOBILE (214) 516-9170 — E-MAIL GABRBEDD@GMAIL.COM

PROFESSIONAL SUMMARY

I am a software engineer with proven experience in engineering, database, and multi-threaded applications. Core languages: C++, SQL, and Python.

STEWART SYSTEMS (PLANO, TX) - MECHANICAL ENGINEER (2004-PRESENT)

Stewart Systems (www.stewart-systems.com) manufactures conveyors and equipment for high-volume bread and bun production (e.g. 1000 buns/minute). Customers include Flowers, Bimbo, and Sara Lee.

Achievements

- Saved 2,600 man-hours every year by writing a Google-like desktop application that fetches drawings automatically when given a part number. (C++, Qt, Sqlite, Python, and Regular Expressions)
- Saved 350 man-hours every year while increasing engineering quality by automating the generation of bills of material and engineering documentation for standard product lines. (Excel, VBA, XML)
- Saved 600 man-hours every year by writing a script to check bills of material before production. (Python, COM, SQL, MS Access)

Responsibilities

- Maintain, design, test, and support automated equipment such as stackers, unstackers, horizontal switches, etc. (see <http://www.stewart-systems.com/Bakery/>).

APW WYOTT (DALLAS, TX) - PROJECT ENGINEER (1999-2004)

APW Wyott (www.apwwyott.com) is a foodservice equipment manufacturer (toasters, holding drawers, etc). Customers include KFC, Taco Bell, Chili's.

Achievements

- Solved heating defects by programming a Finite Differences model. The program was then utilized to optimize the heat distribution. (C++)
- Increased departmental productivity with calculation forms for wiring, sheet metal bend allowances, and beam deflections. (Excel)

Responsibilities

- Design and engineer new commercial appliances from concept to manufacture using 3D MCAD (Solid Edge).
- Prototype and test designs for performance, UL, CSA, CE and NSF.

SASIB/STEWART SYSTEMS (PLANO, TX) - MECHANICAL ENGINEER (1997-1999)

(Same as Stewart Systems above, with similar responsibilities)

Achievements

- Increased productivity by automating BOM generation for Stackers, Unstackers, and Depanners with Excel spreadsheets.

SOUTHDOWN, INC. (KNOXVILLE, TN) - CO-OP ENGINEER (1995-1997)

This company is now CEMEX (www.cemex.com), and manufactures Portland cement (quarry and kiln). I was an engineer in the maintenance dept.

OPEN SOURCE DEVELOPMENT

I participate in several open source projects, including:

- *Composite (live sequencer) [2009-Present]* - Founder and Lead Developer. (C++, Qt 4, threads, DSP, CMake, CTest, boost)
<http://gabe.is-a-geek.org/composite/>
- *Hydrogen (drum machine) [2008-2010]* - Developer specializing in the audio internals. (C++, Qt 4, POSIX threads, DSP, scon, qmake)
<http://hydrogen-music.org/>
- *The Little Budget Tool (lb) [2005]* - A small utility for GnuCash that provides budget/spending feedback. (C++, Qt 3, autotools/make)
<http://www.teuton.org/~gabriel/lb/>
- *JACK Transport Audit Tool [2008]* - Small tools to quality audit how well a program conforms to the JACK transport. (C/C++, qmake)
http://www.teuton.org/~gabriel/jack_transport_audit/

TECHNICAL COMPETENCIES

I am always learning new technologies. Here's a summary:

- Primary Languages: C++, C, Python, and SQL
- Other Languages: bash (grep/sed), MS COM (automation), PHP, VisualBasic, PL/pgSQL, Java, ladder logic (PLC)
- Multi-threaded and distributed applications: POSIX threads, Qt threads, client/server
- Build systems: make, autotools, qmake, scon, distcc
- Databases: PostgreSQL, Sqlite, MySQL, MS Access
- SCM tools: Git, Subversion, CVS
- XML: DocBook, XHTML, XSLT, XPath, CSS, DTD, Xalan, MSXML
- Numerical calculations (curve fitting, PDE's, measurement statistics)
- Administration: Apache, OpenSSH, NIS, NFS, Subversion, Git, CUPS
- Networking: Ethernet, Switches, Routers, packets, ports, firewalls, etc.

EDUCATION AND TRAINING

B.S. Mechanical Engineering, U. of Tennessee (Knoxville), 1997