

# Michael Roberts

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## LIFE AS TOLD IN PROJECTS

### **AUTOMATED WAREHOUSE MANAGEMENT**

C | GERMANY, 1988-1990

Responsible for the client side of a client-server warehouse management system. Implemented most of what I later realized was a configurable data entry form language. Learned a lot about how not to manage projects.

### **MANUFACTURING DOCUMENT MANAGEMENT** C, MEZZANINE, SQLSERVER, WORD | INDIANA, 1990-1992

Wrote an unholy amalgamation of Word Basic and C to discover structure in thousands of text-only manufacturing procedures during Word import. Built a rule-based expiration date calculator that was used for all packaging at Eli Lilly for several years. Learned enough about Mezzanine document management that I taught classes for several years after that.

### **TECHSPEX**

AOLSERVER, TCL, POSTGRESQL | 1996-2004

Built a searchable machine tool database on spec and managed it for eight years until its acquisition. Incorporated a decentralized master data management workflow that was maybe a bit ambitious, but boy howdy did the users like it.

### **DESPAMMED.COM**

AOLSERVER, TCL, MYSQL, C, PERL | 1999-2007

As far as we could tell, this was the first free spam filter. Built it in 1999 and operated it until 2007. Donations paid a couple of mortgage payments; learned a lot.

### **DOCTORAL RESEARCH, INTERRUPTED**

NEVER GOT AS FAR AS CODE | INDIANA, 2000

Started doctoral work with Douglas Hofstadter's FARG group directly after my Masters; plan was interrupted by illness of younger son. Son's kidney cells eventually published in Nature; academic career did not survive.

### **WFTK**

C, THEN JAVA, THEN PERL | 2000 - 2004

This was, I believe, the first open-source workflow framework written. Failed to reach community take-off popularity. Most of my intellectual life thereafter has been framed in terms of workflow.

### **DECL**

PERL, RACKET | 2010 UNTIL ETERNITY

Decl is a notation system intended to organize and express semantic structure that grew out of FARG, a project implementing Wx GUI in Python, and a drive to make sense of decades of technical documentation. It falls somewhere between a programming language and an extensible DSL.

### **COFFEE ROBOTICS**

TENSORFLOW, OPENS CAD, ARDUINO, PYTHON, PERL, C | 2014 TO PRESENT

I've been working towards automation of land tending and harvest of coffee in upland Puerto Rico. This work ranges from TensorFlow application programming for vision and planning to OpenSCAD for the design of parts for prototyping, a Python GUI client for central control, protocol design and a daemon running in the robot's brain to coordinate tasks and actions. SBIR grantsmanship has figured heavily into the workload, so far without resulting in any grants. It's been nice to build physical objects for a change.

## SELECTED EMPLOYMENT

### **VIVTEK LLC | TECHNICAL TRANSLATION**

Indiana, Budapest, Puerto Rico | 2005 - present

Translation, unlike software, pays the bills without any detectable scope creep. Did I mention I read German, Spanish, French, Hungarian, and Italian, and can fake Portuguese and Dutch? Also, it turns out you can leverage a lot of scripting skills to manage large amounts of textual data. The industry is undergoing upheaval due to improvements in AI and depending on it as a sole proprietor freelancer feels like building a house on shifting sand.

### **VIVTEK LLC | DATABASE/WEB PROGRAMMING**

Indiana, Budapest, Puerto Rico | 1996 - 2005

For a while in the 90's and early naughts, just knowing about databases was enough to make money. Managing customer expectations while still writing code turned out to be one too many hats for me to wear at once. Getting out of software was a good solution for a long time.

### **AIC | PROGRAMMER/ANALYST**

Indianapolis, IN | 1991 - 1996

My entire time with AIC was spent at Eli Lilly (the MDM manufacturing document management project above).

### **IKOSS GMBH | PROGRAMMER/ANALYST**

Stuttgart, Germany | 1988-1991

My first employer out of college (after a Junior Year Abroad in the same city). My entire time with IKOSS was spent on a single project at Arburg. Much, much later I translated the Arburg employee newsletter for a while.

## EDUCATION

### **MS, Computer Science**

INDIANA UNIVERSITY

Bloomington, IN | 1996

### **BS, Computer Science/Electrical Engineering**

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Terre Haute, IN | 1988

## SKILLS

**Programming languages:** Perl, C, Python, SQL, JavaScript, Scheme/Racket

**Areas of competence:** GUI and Web, databases, workflow, Unix sysops, natural language work, electronics, machine learning