

Vincent L. Marshall

3235 Amber Street Unit #6
Philadelphia, PA 19134
(215) 426-1447

Summary An electrical engineer, designer, and creative force with a focus on engineering design and software development. Over a decade of experience as a professional software developer with experience across a wide variety of industries, platforms, and media. Superior project management skills earned through years of team membership and leadership. Always seeking new and interesting problems to solve.

Skills *Languages and Markup:* Ruby on Rails, Java, Perl, PHP, C, C#, Uvicom Assembler, HTML, XML, CSS, L^AT_EX

Environments: Linux, System V Unix, SunOS, OS X

Applications & Other: MySQL, Relational database design, Object Oriented Programming, CVS, SVN, GIT, Apache web server, SOAP, XML Web Services, Linux system administration, QCad, Matlab, Spice, Final Cut, Adobe CS3 Illustrator, Photoshop, and InDesign

Design & Fabrication: Machinist, MIG & TIG & Oxy-Acetylene weldor, Structural design and analysis, Integration of embedded microcontrollers and machinery

Employment *T.E. Motorworks, Inc.* 2004 - Present
Self-Employed
Philadelphia, PA

Overview: Operating in the capacity of a consulting engineer through the design engineering company TE Motorworks from 2004 to the present, and as a freelance programmer from 1998 through 2004.

Selected Projects & Clients

- **Tango Echo - Philadelphia, PA** - [January 2009 - Present] - Architected, managed, and implemented this online magazine, store, and blog project using Ruby On Rails. Technical lead and part owner of this project.
- **Veritat Advisors - Philadelphia, PA** - [August 2008 - March 2009] - Designed, architected and implemented large parts of a new financial advising website using Ruby On Rails while managing and training another programmer and helping the client to develop specifications for the project.
- **Apptastics - Horsham, PA** - [September 2007 - November 2008] - Developed parts of a group messaging and social networking application in Ruby on Rails. Expanded the project to include a Facebook application which communicated with the main application.
- **Skidmutro - Philadelphia, PA** - [June 2008 - July 2008] - Wrote code to extend an existing PHP website to integrate with an off-site customer management database using a SOAP Web Services API.
- **Mediagistics - Paoli, PA** - [March 2007 - September 2007] - Designed and implemented a mortgage lead generation website engine, which was used and

extended over the course of the project to power several websites in the industry. This was programmed in Ruby on Rails.

- **Mediagistics - Paoli, PA** - [October 2006 - March 2007] - Designed and implemented a complex reporting system in PHP and Perl which aggregated CPC advertising conversion rates and allowed for detailed analysis of ad campaign efficacy.
- **HZ, LLC - Paoli, PA** - [January 2006 - May 2006] - Developed an overall architecture plan and implemented code to fetch, parse, format, and deliver web content to mobile email devices. Did significant planning, documentation, and development on top of an existing system and code to make the client's system ready for production use.
- **Skidmutro - Philadelphia, PA** - [January 2005 - July 2005] - Built ASP.net website access controls for www.cliniciansbrief.com that determined user privileges in real-time using data from a third-party, off-site database. C#.Net code on the website interacted with the third-party Web Services API to access user information and assign access privileges on the website accordingly.
- **The Health Care Group - Plymouth Meeting, PA** - [2002 - 2004 (multiple projects)] - Designed and developed all parts of the HCG website in Java (JSP / Servlet / J2EE), which included a dynamic content management system, a user management system, and an online store. Developed an extensive administration sub-system for the same. Developed a series of MS Access based benchmarking applications that performed statistical analysis on collected data.
- **Smartmoney.com - New York, NY** - [June 2000 - February 2001] - Developed a Java application for visualization of website usage data. This consisted of a spider to download the site, a log analyzer to import the web server access logs including the referring page data, and the main program which rendered the original website in black and green tones indicating the relative popularity of each link. Perl was used in addition to Java for all pre-processing of the website log data.
- **Design & Fabrication** - [2004 - Present] - A portfolio of design and fabrication work is available online at www.te-motorworks.com

Cloverleaf Auto Services
Mechanic
Aston, PA

June 2003 - June 2004

- **Restoration** - Restoration of antique British sports cars consisting of restoration of electronic components, sheet metal work, and drive systems. Development of troubleshooting and project management skills in a different arena.

Draeger Medical
Programmer
Telford, PA

September 2002 - May 2003

- **ASP.net** - Implementation in C# of a Web Services API exposing access to certain underlying methods of the company's core product. Handled locking, transactions, persistence, and other distributed data issues. Product had to interact safely with the multiple tiers of business logic and database access in a far less controlled environment than a traditional user interface.
- **SQL Server** - Development of queries and stored procedures with the project's database team to provide the data sets required by the external API.
- **Requirements** - Significant involvement in requirements development and documentation.

- **Microsoft Development Tools** - The company was an entirely Microsoft shop, which entailed heavy use of Visual Studio, Visual Source Safe, SQL Server Query Analyzer, and MS documentation tools.

GRASP Laboratory of the University of Pennsylvania
Engineer
Philadelphia, PA

1999

- **Robotics** - Developed, as part of a team, an architecture for modular robotics including the communications bus hardware and software protocol. Wrote embedded software to implement this protocol. Processors speaking the protocol controlled each element in a modular robot, and when connected could use peer to peer communication to interact as if in a purpose-built, centrally-controlled robot.

Education

University of Pennsylvania Philadelphia, PA
B.S.E, Computer and Electrical Engineering. Magna Cum Laude, 2000
Minor in Mathematics

Publications

- Kedia, Kapil and Vincent Marshall. "An Architecture for a Modular Robot." *NSF SUNFEST Projects 1999*. 31 December 2000.
<<http://www.ese.upenn.edu/sunfest/pastProjects/Papers99/Kapil.PDF>>.

References

Available upon request.