



Stephen Heitmann

Senior Software Architect and Engineer, Innovator, Entrepreneur

Specializing in Mobile, Web, DBMS, Android, Ruby, C/C++, Rails and Titanium

Do You Need Help With A Web 2.0, Mobile or Telematics Project?

HOW YOU BENEFIT

Lower Cost from Design.

Architecture design (scalable, extensible), functional and data design, user interface design, object-oriented design, and algorithm design. "*Good Design is Good Business*" – Thomas J. Watson, former Chairman, IBM.

Lower Cost from Correct Solutions that Work Reliably.

Software Engineering best practices and Agile methods, including requirements analysis, problem definition, all design phases (above), Object-Oriented Programming, and testing.

Lower Cost from Automation.

Event-driven email broadcasts, scheduled data transfers, web scraping and other content extraction, automated instrumentation and error detection, and many other custom automated capabilities that boost productivity and lower production costs.

Staying on the Competitive Edge.

Innovation, Mobile Web 2.0, Smartphones and Tablets. SQL-Injection prevention, data encryption methods, multi-threaded processing, RDBMS, Information Retrieval, search engines, and specialized hardware.

Flexible Rates that Meet Your Needs.

Project-basis quote so you stay within budget.

EXAMPLE WORK PRODUCTS

Automated Vehicle Advisory prototype for Daimler and Chrysler Corp. Provides vehicle owner with advice to improve maintenance, driving habits, CO2 emissions, and timely response to service alerts (replacing the "idiot" light). Advisory information provided via browser and derived from DTCs, fuel efficiency, city/highway driving, and more from vehicle data log.

PEN 2000 for Amercom Technology Group. Interactive, encrypted email client for secure messaging via Internet, MANETs or directly connected modems, cell or landline. Client and mail-stores reside on a secure USB flash memory drive. Invented a strong encryption-key management method for mobile use.

The Mobile Assistant for IBM T.J. Watson Research. Spoken requests and synthetic voice response via telephone to access email, voice-mail, fax, appointments, and pre-specified web sites.

Washington State Lottery Information Service. Callers select from a menu to hear winning numbers for Lotto, Keno, Daily Game, or Quinto. Included billing and reporting. Handled up to 400,000 calls per month and peaks of 21,000 calls per hour.

Step-Response Active Laser Trimming of Thick Film Five-Input Amplifier for Tektronix Laboratories. Invented and developed a general purpose first-order optimizer w/no back-tracking for trimming hybrid circuits with a laser.

BACKGROUND AND STRENGTHS

■ Innovation, problem-solving, concept development, identification of emerging technologies ■ Especially effective in research or start-up environments.

■ Applied mathematics, algorithm design ■ Software and system architecture design.

■ Telematics (IVR, voice, mobile web, speech recognition), web applications, information retrieval and search engines.

■ Applied basic electronics, specialized hardware or instruments under program control ■ Real-time applications, network and serial communications, embedded software (not recent).

■ 30 years' engineering and project management experience. Passionate about developing high-quality software, especially using Ruby. Extensive experience with MySQL, Oracle, Linux, Windows, Unix, Ruby, C/C++, SQL, and PHP. Frameworks include Ruby on Rails and Titanium.

■ Small business skills from managing two software companies (10 years each), including project management, market research, competitive analysis, and presenting to and communicating with non-technical people. Excellent written and verbal communication skills.