

# MAT TRUDEL

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## Summary of Skills

**Core Competencies:** Product design, mobile application design and development, framework & API design, server-side API implementations

**Languages & Platforms:** Objective C / Swift, Ruby (both on- & off-Rails), C (hosted & bare metal) as well as most others in various capacities.

**Process & Tooling:** All aspects of Agile process workflow, build & test automation, tooling & SCM systems, and production-level operations work

**Related Skills:** Great eye for product, comfortable wearing any hat within an organization, can deliver a killer workshop or conference presentation. Journeyman EE & PCB skills. Budding CNC fabricator.

## Experience

### **Owner, Moshozen Inc**

Toronto, Ontario, March 2012-Present

Running my own consulting shop, I have focused mostly on iOS & Ruby on Rails development for various clients, with a healthy dose of product design, UI/UX work, and whatever else it takes to get the job done. Client work has focused mostly in the healthcare & wellness domain, with the occasional foray into more commercial work. Projects have mostly been in-house affairs; samples of work are available on request.

### **Massive Health Inc.**

San Francisco, CA March 2011-October 2011

As the second hire of a small health-care related startup, my duties were both wide ranging and constantly changing (hence the lack of title). During my tenure at Massive, we designed and built The Eatery, an consumer health app that went on to win numerous 'best of category' awards in 2011. I was responsible for the development of the underlying iOS application platform (a ground-up HTML engine inspired by PhoneGap) as well as the backend server (Rails, with a hodgepodge of statistics tools bolted on).

### **Developer-At-Large, Well.ca**

Guelph, Ontario 2010-March 2011

My portfolio at Well.ca was extremely wide-ranging. Within the development team, I was part architect, part operational lead, and part ersatz elder. In empirical terms, my role was to guide the long-term growth and strategy of the Well.ca development team in architectural, process, and cultural terms, while at the same time working on ancillary projects outside of Well.ca's principal development focus. In addition to these responsibilities, I also managed the infrastructure, operations and deployment the company's production and test environments.

### **Senior Technical Team Lead, Medical Device Informatics Group, Toronto General Hospital**

Toronto, Ontario 2005-2010

I was a manager-among-equals of a team of five developers responsible for implementing technology based clinical trials in both home and hospital based environments. Building everything from iPhone applications (including one that garnered international news exposure) to custom PCBs & firmware to AJAX heavy websites exposed me to an absolutely dizzying number of technologies and honed my ability to wear many hats into something of an art form.

Our small team size & work load dictated a formal yet pragmatic workflow and a pathological approach to automation.

#### **Senior Developer / Architect, J2X Technologies**

Waterloo, Ontario 2002-2003

I was brought on board as the first developer for the gaming side of a mobile apps startup where I set to work writing a framework that would port abstract game logic between devices with varying UIs and capabilities. I later extended the framework to encompass a server-side component to facilitate turn based games over the network. I also implemented version control and issue tracking for the larger organization. While we never found much success in North America, we were – for a time – big in Japan.

#### **Application Developer, Cyberplex Interactive**

Waterloo, Ontario 2001

This was my final work term as well as my first professional introduction to web development. The bulk of my time was spent writing J2EE code for several large scale e-commerce sites. During the latter part of the term I focused on build & deployment automation systems for the team.

#### **Cryptography Developer, Diversinet**

Toronto, Ontario 2000

A summer work term spent sitting at the feet of eccentric longbeards, writing assembly language crypto routines for embedded devices. I greatly enjoyed the detail oriented nature of the work, and learned a lot about the tradeoffs between inherently hard technical problems and the realities of the business world.

#### **Application Developer, Intellitactics**

Kitchener, Ontario 1999

I implemented a distributed, graph based message delivery system to replace a core component of the company's flagship product. I also wrote an XSLT (1.0 draft!) based translator to convert graph descriptions forward from existing deployments. Started a code review process within our development team, and drafted a set of source code best practices.

#### **System Administrator, IGS Cornwall**

Cornwall, Ontario 1996-1999

As an after hours high school job, I ran all technical aspects of a small town ISP in the days when 28.8k internet connections were an extravagance. My work consisted of server provisioning and maintenance, as well as looking after a mixed environment of dial-up modems, leased line hardware, and routers.

### **Education**

#### **MASc, University of Waterloo**

Waterloo, Ontario 2003-2005

Not being able to get enough of combinatorial optimization in the working world (who can, really?), I decided to undertake a MASc in Civil Engineering, specializing in traffic modeling. My thesis work developed an original model for optimal scheduling of road maintenance operations taking into account road conditions and traffic levels. This work was presented at the 2005 Transportation Research Board conference (the premiere stop on the North American civil engineering conference circuit), and has since been extended by subsequent graduate students in the department.

### **BMath (Double Honours), University of Waterloo**

Waterloo, Ontario 1997-2002

Beginning as a CS major, I took particular interest in cryptography, graph theory, and combinatorial optimization in upper years, leading me to pursue a second Honours degree in Combinatorics & Optimization in addition to my original CS major. I also took interest in OS theory (one of my fourth year projects was building a protected multitasking x86 OS on bare metal) and circuit design (taking several courses in the Electrical Engineering department).

### **Publications**

Lopez R, Chagpar A, White R, Hamill M, Trudel M, Cafazzo J, Logan AG. "Usability of a Diabetes Telemanagement System". J Clinical Engineering. 2009; 34(3):147-151

Logan AG, Mclsaac WJ, Tisler A, Irvine MJ, Saunders A, Dunai A, Rizo CA, Feig DS, Hamill M, Trudel M, Cafazzo JA. "Mobile phone-based remote patient monitoring system for management of hypertension in diabetic patients". Am J Hypertens. 2007; 20(9): 942-8

Trudel M, Cafazzo JA, Hamill M, Igharas W, Tallevi K, Picton P, Lam J, Rossos PG, Easty AC, Logan A. "A mobile phone based remote patient monitoring system for chronic disease management". Stud Health Technol Inform. 2007; 129(Pt 1): 167-71

Eysenbach G, Trudel M. "Going, going, still there: using the WebCite service to permanently archive cited web pages". J Med Internet Res. 2005; 7(5): e60

Fu, L, Trudel, M. "A Real-Time Scheduling Model for Winter Road Maintenance Operations". Proceedings of the 84th Annual Meeting of the Transportation Research Board. Washington DC. January 2005