

Gabriel Weisz

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Citizenship: United States of America

Education

PhD **Carnegie Mellon University, Department of Computer Science.**

Thesis defense planned for August 2015

Advisor: James C. Hoe

Thesis Title: CoRAM++: An Interface and Mechanism Efficiently Supporting Key Memory Access Patterns in FPGA Computing

M.S. **Carnegie Mellon University, Department of Computer Science.**

Awarded May 2013

B.S. **Cornell University, College of Engineering, *Cum Laude.***

Double major in computer science and electrical engineering. Awarded May 1999.

Dean's list, spring 1996-spring 1999 inclusive.

Professional Experience

2010-Present **PhD Candidate, Carnegie Mellon University, Department of Computer Science.**

My research at the Computer Architecture Lab at Carnegie Mellon University focuses on making FPGA devices easier to use while retaining maximum performance.

1999-2010 **Co-founder and Vice President of Technology, Salar, Inc.**

- Bootstrapped the company from startup to millions of dollars in annual revenues, customers among the top hospitals in the country, and an award for Baltimore's best place to work in 2009 (micro category).
- Managed of the company's development team.
- Software architect and development team leader. Selected projects:
 - TeamNotes, Salar's flagship documentation and charge capture product, in use by over 25 hospitals for over a million patient record per year.
 - An embeddable version of the TeamNotes form engine that was licensed to several customers.
 - Referral+, an award winning referral management tool in use since 2007.
 - Tap, a Palm OS physician professional fee charge capture system.
 - The Palm OS version of the Johns Hopkins Antibiotic Guide, a handheld clinical drug reference that was been downloaded by over 150,000 people worldwide.
 - A document management system for creating peer reviewed medical references that publishes to the web, print, and mobile devices.
- Managed membership in the Microsoft Certified Partner program, including product validation and customer references.

1999 **Software Engineer, Immersive Technologies, LLC.**

Developer on the company's platform for creating cinematic, photo-realistic images using beam tracing techniques and a novel special subdivision algorithm, which were ultimately implemented in hardware.

1998-1999 **Software Engineer, Jump Networks.**

Developer on one of the first free web-based email, shared calendar, and contact management systems. I worked on the company's core platform, which was implemented as a custom Apache module, on syncing contact and other data between the desktop and web system, and on the email transport system.

Selected Publications

- FCCM 2014 Eriko Nurvitadhi, Gabriel Weisz, Yu Wang, Skand Hurkat, Marie Nguyen, James C. Hoe, Josè F. Martínez, and Carlos Guestrin.
GraphGen: An FPGA Framework for Vertex-Centric Graph Computation
The 22nd IEEE International Symposium on Field-Programmable Custom Computing Machines, Boston, MA, May 2014
- FPGA 2013 Gabriel Weisz and James C. Hoe.
C-To-CoRAM: Compiling Perfect Loop Nests to the Portable CoRAM Abstraction
The 21st ACM International Symposium on Field-Programmable Gate Arrays, Monterey, CA, February 2013 (**Presenter**)
- FPGA 2012 Eric S. Chung, Michael K. Papamichael, Gabriel Weisz, James C. Hoe, and Ken Mai.
Prototype and Evaluation of the CoRAM Memory Architecture for FPGA-Based Computing
The 20th ACM International Symposium on Field-Programmable Gate Arrays, Monterey, CA, February 2012

Skills

Technical leadership: System architecture, design, and development of thick client applications, mobile applications, web applications, enterprise and distributed systems, security infrastructure, and databases

Project management: Requirements gathering, specification development, timeline creation, testing and issue tracking, revision control, configuration and release management, code reviews

Programming languages: C, C++, C#, Java, JavaScript, SQL, Python, Perl, PHP, VB, Matlab, XML, HTML, Verilog, VHDL, Bluespec System Verilog

Development environments and technologies: Microsoft Visual Studio, Eclipse, gcc/make, .Net, MFC, ADO, COM, ODBC, DAO, ActiveX, OpenGL, DirectX

Databases: Microsoft SQL Server, Oracle, MySQL, Sqlite

Patents, Awards, and Activities

- 2012 **Patent #8,326,653** Method and apparatus for analyzing patient medical records. Gottlieb, Gottlieb, & Weisz
- 2015 **Grand Awards Judge** Systems Software Category, Intel International Science and Engineering Fair
- 2013-Present **Member of the Board of Directors** Cornell Club of Pittsburgh
- 2012-Present **Member of the Doctoral Review Committee** Computer Science Department, Carnegie Mellon University
- 2012-2014 **Member of the PhD Program Admissions Committee** Computer Science Department, Carnegie Mellon University
- 2012 **Grand Awards Judge** Computer Science Category, Intel International Science and Engineering Fair
- 2011-Present **Undergraduate Admissions Contact** Cornell Alumni Admissions Ambassador Network
- 2010-Present **Graduate Fellowship** Computer Science Department, Carnegie Mellon University
- 2004-2005 **Team Mentor** Greater Baltimore Technology Council "Mosh Pit" Business Plan Competition