Salman Ahmad

EDUCATION

PHD, COMPUTER SCIENCE   SEPTEMBER 2014
- Massachusetts Institute of Technology, Cambridge, MA
- Dissertation: Programming Language Design for Service-Oriented Systems
- Advisor: Dr. Sep Kamvar

MS, COMPUTER SCIENCE   JUNE 2011
- Stanford University, Stanford, CA
- Specialization: Human Computer Interaction
- GPA: 4.0 out of 4.0

BSE, COMPUTER SYSTEMS ENGINEERING   DECEMBER 2008
- Arizona State University, Tempe, AZ
- Summa Cum Laude
- GPA: 4.0 out of 4.0

HIGH SCHOOL DIPLOMA   MAY 2005
- Corona del Sol High School, Tempe, AZ
- Class Standing: 1 out of 689
- GPA: 4.0 out of 4.0

WORK EXPERIENCE

MONOCLE, LLC - FOUNDER   OCTOBER 2014 - PRESENT
- Recently founded Monocle to develop principled products that utilize my HCI and programming language research experience to empower small and medium sized businesses to create custom software solutions
- Currently in development for a 2015 product launch

INVOY TECHNOLOGIES, LLC - VP OF PRODUCTS   JUNE 2006 - PRESENT
- Lead product development of a portable Bluetooth-enabled medical device for monitoring compounds in breath
- Design and implement the embedded software, electronics, and iOS app to communicate with the device from an iPhone
- Create and manage the cloud-based services and applications for managing user data and supporting health care applications
- Author sections on software controls for 510(k) submissions to the FDA and ensure compliance with FDA mobile app guidelines
- Coordinate with safety and EMC consultants to ensure compliance with ISO standards (ES 60601-1, IEC 60601-2, and IEC 60601-1-11)

STANFORD UNIVERSITY - RESEARCH ASSISTANT   DECEMBER 2010 - JUNE 2011
- Worked with Professor Scott Klemmer as part of Stanford's HCI Group
- Worked on Bricolage, a web design tool based on leveraging existing examples

MICROSOFT CORPORATION - SOFTWARE DEVELOPER INTERN   JUNE 2010 - SEPTEMBER 2010
- Designed and developed visualization tools for Windows Live to monitor
- Managed huge computing clusters, deployed large-scale web services, architected scalable server infrastructures

MICROSOFT CORPORATION - SOFTWARE CONSULTANT   FEBRUARY 2009 - AUGUST 2009
- Worked on the Dynamic Datacenter Toolkit, a cloud computing solution for data centers
- Created a demo that was showcased by Microsoft VP Bob Muglia during the Worldwide Partner Conference in 2009

ACUTEPATH, INC - SOFTWARE CONSULTANT   MAY 2008 - DECEMBER 2008
- Lead research and development on projects from user interface considerations to framework design
- Developed and maintained the software foundation for several upcoming products

FREESCALE SEMICONDUCTOR, INC - SOFTWARE ENGINEER   JUNE 2007 - SEPTEMBER 2007
- Developed a web-based tool to analyze data from semiconductor fabrication plants
- Assisted in strategic planning and project development

RESEARCH PROJECTS

SILO: A SERVICE-ORIENTED PROGRAMMING LANGUAGE   AUGUST 2013 - PRESENT
- Created a new language for building complex and distributed server-side applications in a service-oriented manner
- Compiles to JVM bytecode for interoperability with existing Java code and libraries
- Includes powerful meta-programming capabilities for extending the compiler and for creating domain-specific languages
- Features an easy-to-use and high-performance concurrency model for I/O-driven networking applications

THE DOG PROGRAMMING LANGUAGE   FEBRUARY 2012 - OCTOBER 2013
- Created a programming language for leveraging human computation in applications
- Allows software developers to offload application logic to human users for tasks requiring "human judgement"
- Empowers users with little programming experience to build powerful applications

JABBERWOCKY   JANUARY 2011 - MARCH 2012
- Created a platform for building social applications
- Enables applications to easily integrate with crowdsourcing platforms
- Provides a rich set of template for common crowdsourcing tasks like audio transcription and data entry

BRICOLAGE   JANUARY 2010 - APRIL 2011
- Worked with Dr. Scott Klemmer at Stanford University
- Developed a web design tool that automatically utilizes existing webpages as templates

LINEHIVE   JANUARY 2010 - JULY 2011
- Designed, developed, and deployed a web app that lets users organize webpages into beautiful timelines
- Was selected as a finalist in Mozilla's *Jetpack for Learning Design Challenge* at SXSW 2010

AFFECTIVE LEARNING COMPANION   AUGUST 2004 - MAY 2005
- Worked with Dr. Winslow Burleson at Arizona State University
- Created an affect-aware computer system to serve as an educational tool
- Programmed and configured several sensors to collect and characterize a user's emotional state

PAPERS AND TECHNICAL REPORTS

- Salman Ahmad. Programming Language Design for Service-Oriented Systems. Dissertation, Massachusetts Institute of Technology EECS 2014.

- Salman Ahmad and Sep Kamvar. The Dog Programming Language. UIST 2013.

- Ranjitha Kumar, Arvind Satyanarayan, Cesar Torres, Maxine Lim, Salman Ahmad, Scott R. Klemmer, and Jerry O. Talton. Webzeitgeist: Design Mining the Web. CHI 2013.

- Ranjitha Kumar, Jerry O. Talton, Salman Ahmad, and Scott R. Klemmer. Data-Driven Web Design. ICML 2012.

- Salman Ahmad, Alexis Battle, Zahan Malkani, Sep Kamvar. The Jabberwocky Programming Environment for Structured Social Computing. UIST 2011.

- Ranjitha Kumar, Jerry O. Talton, Salman Ahmad, and Scott R Klemmer. Bricolage: A Structured-Prediction Algorithm for Example-Based Web Design. Submitted to CHI 2011.

- Ranjitha Kumar, Jerry O. Talton, Salman Ahmad, Tim Roughgarden, and Scott R. Klemmer. Flexible Tree Matching. IJCAI 2011.

- Neema Moraveji, Salman Ahmad, Chigusa Kita, Frank Chen, and Sep Kamvar. Weblines: Enabling the Social Transfer of Web Search Expertise using User-Generated Short-form Timelines. CSCL 2011.

- Salman Ahmad, Temitope Akinwade, Elizabeth Cohlman, Matthew Jones, Nitesh Mehta, and Peter Woods. Affective Learning Companions: Increasing Affective State to Promote Long Term Learning. Senior Capstone Report, Arizona State University, 2009.

AWARDS & HONORS

▸ Siebel Scholar, class of 2011	August 2010
▸ ASU Award of Excellence	March 2008
▸ President's Scholarship, Arizona State University	August 2005
▸ Medallion of Merit Scholarship, Arizona State University	August 2005
▸ AP Scholar with Distinction	June 2005
▸ Valedictorian, Corona del Sol High School	May 2005

TECHNICAL SKILLS

▸ Programming Languages: C/C++, C#, Java, Javascript, Objective-C, PHP, Python, Ruby, Shell Scripting

▸ Programming Frameworks: .NET 4.0, AppKit, UIKit, WCF, WWF, WPF

▸ Web Technologies: Ajax, ASP.net, CSS, Ember, HTML, JSP, Javascript, Node.js, Ruby on Rails, Silverlight, Socket.io, XML

▸ Databases: Microsoft SQL Server 2005, MongoDB, MySQL, Postgres SQLite3, Teradata

▸ Enterprise Systems: Hyper-V and System Center, Commerce Server 2009