

Meg Richards

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Education

B.S., Computer Science, Carnegie Mellon University

Professional Technical Experience

Sr. Systems Software Engineer / November 2011 – Present

Office of Technology for Education, Carnegie Mellon University, Pittsburgh, PA

Develop and maintain various web applications to support Eberly Center programs.

Update and manage various CMS instances.

Administer the Eberly Center's hypervisor and provision and maintain all virtual machines on it

Systems Software Engineer / 2008 – October 2011

Computing Services, Carnegie Mellon University, Pittsburgh, PA

Web and Mobile Application Development:

Designed and implemented the University's Web-based white pages, www.cmu.edu/directory.

Prototyped an Android mobile application that would enable users to access the University's directory on their mobile devices.

Implemented a callback service to validate SOAP requests and insert them into a JMS queue within Oracle WebLogic.

Prototyped an application allowing users to manage LDAP groups autonomously.

Enterprise LDAP Integration, Administration, and Application Development:

Defined and update object classes and subtrees to model new data.

Managed LDAP master and replica servers, and the master's Oracle back-end.

Implemented end-user Web interfaces to the directory.

Web Application Developer / 2007 – 2008

Student Activities, Carnegie Mellon University, Pittsburgh, PA

Designed and implemented the second generation of OrgTracker, the Web application that manages student organization information, including their space access and assignments. Integrated it with other student activities information systems.

Designed and implemented the Student Government web-based election system used by graduate and undergraduate students to select members of Student Senate, the Student Government Executives, and to vote on referendums.

Professional Teaching Experience

Instructor, Computer Science / 2011-Present

Summer College Preview Program, Carnegie Mellon University in Qatar (one month)

Taught introductory computer science to gifted high school students using Finch robots and the Processing programming language.

Teaching Assistant, Web Application Development / 2008

Computer Science Department, Carnegie Mellon University in Qatar (two months)

Co-taught course with faculty member and had primary responsibility for lab development, grading, and framework-specific lectures.

Teaching Assistant, Fundamental Data Structures and Algorithms / 2007

Computer Science Department, Carnegie Mellon University (one semester)

Led recitations, developed exams, and graded coursework. Developed “CS unplugged” techniques to reinforce course material.

Expert Witness Experience

US v. Graves / 2016

Performed thorough examination of mobile device to discover evidence of compromise.

US v. Welshans / 2016

Performed thorough examination of computers and networking equipment to discover evidence of compromise.

Testified in court on findings and analysis.

US v. Hawkins / 2015

Performed thorough examination of computer to discover evidence of compromise.

Community Service

Systems and Infrastructure Management, Activities Board / 2007 – Present

Carnegie Mellon University

Virtualized the infrastructure for the Board’s information system infrastructure.

Deployed domain services, including Kerberos, PubCookie, Web servers, etc.

Piloting University Center digital signage project for event advertising that incorporates the campus emergency alert system, interactive art, and uses the Microsoft Kinect.

Subcommittee Chair, Spring Carnival Committee / 2004 – Present

Carnegie Mellon University

Chaired various subcommittees managing critical operations for Spring Carnival. Duties included applying for city permits, arranging rental agreements, coordinating transportation, and forming watch-shift staff assignments for build week.

Designed and implemented a golf cart tracking system and RFID-based ignition. Location tracking, available through a Web interface, used APRS beaconing, an amateur radio technology, and GPS.

This enabled efficient movement of people and other resources throughout the week.

Volunteer Technical Consultant, Children’s Resource Centre, Sri Lanka / 2006

Technology Consulting in the Global Community Program, Carnegie Mellon University (ten weeks)

Lived and worked in Sri Lanka providing technical expertise to an NGO established to help children in the community of Hambantota after the 2004 tsunami.

Programming Languages, Tools, and Frameworks

Bash scripting, C, C++, Java, Ruby, Ruby on Rails, JavaScript, jQuery, SQL, Web Services, Android SDK, LDAP, Kerberos, OpenFrameworks, HTML, CSS, LaTeX, Processing, Adobe InDesign, Adobe Photoshop, VMware ESXi, Debian/Ubuntu, RHEL/Fedora