

Ron Conescu

Master of Human-Computer Interaction, Carnegie Mellon University, 2006
17 years' experience designing and building graphical user interfaces

ron (at) conescu (dot) com
650-388-6806

1909 Rock Street, Apt. 8
Mountain View, CA 94043

skills

people	end-user advocacy mentoring teamwork translation user interviews	Represent users' needs to software-architecture teams Focus on a teammate's reusable skills Focus on team's success; help ensure everyone's voice is heard Translate tech-speak into end-user speak, and vice-versa Respectfully elicit users' perspectives
design	GUIs print layout techniques	User-friendly, powerful tools for both novices and power users Easy-to-read and easy-to-follow posters, papers, and tutorials Paper prototypes, wireframes, personas, brainstorming, iterative user testing
analysis	techniques	Affinity diagrams, contextual inquiry, heuristic evaluation, think-aloud studies
architecture	UI components object-oriented design systems integration	Reusable, extensible, object-oriented, graphical tools with easy-to-use APIs Tools that can be used to build other tools; systems that represent reality Support for end-user features across interconnected software systems
programming	languages	<i>current:</i> C#, HTML, Java, JavaScript, regular expressions, Ruby on Rails, XML <i>past:</i> 680x0 assembler, ASP, C, C++, ClearBasic, HyperTalk, JDF, Objective-C, Perl, PHP, PostScript, SQL
	tools and environments	<i>current:</i> AJAX, CVS, Eclipse, jQuery, WindowBuilder, Yahoo! Widgets <i>past:</i> .NET, Blacksmith, Cocoa, Continuus, Clarify, Double Helix, Flash, Intershop, Gain Interplay, Gain Momentum, MacApp, NetBeans, Omnis 7 ² , Oracle, Remedy, Subversion, Swing, Sybase, Visual Studio
	operating systems and hardware	<i>current:</i> Macintosh, Windows, Unix <i>past:</i> BASIC Stamp, PowerTV

employers and clients

2008–today	Ricoh Innovations, Inc.	Design and build interactive software prototypes for customer research
2006–2008	Ricoh	Develop GUIs and system architecture for controlling print shops
2005–2006	NASA	Research, design, test, and develop GUIs for robots in Mars-relevant ways
2004–2006	Carnegie Mellon University	Design and develop video-search, -playback, and -editing tools; user studies
2002–2004	DeVry Institute of Technology	Teach courses in data-driven Web applications, Java, and systems analysis
2000–2001	BroadRiver Communications	Extend customer-relationship management tool; integrate with telephone switch, operations-support system, intranet, and voice mail
1997–2000	BellSouth.net	Design and develop web applications and sites; lead the development of web-based, point-and-click editor for e-commerce-enabled web sites
1995–1997	BellSouth Interactive Media	Design and develop browser and player for interactive television
1994–1995	AirTouch Cellular	Develop Macintosh front end to mainframe credit-checking facility
1992–1994	Norfolk Southern	Design and develop Macintosh front end to mainframe waybill editor
1992	Thomson-CSF (Paris, France)	Develop PostScript-based tool to monitor subcontractors' software quality

education

2004–2006	Carnegie Mellon University	Master's degree in Human-Computer Interaction
1986–1992	Washington University	B.S. in Computer Science; B.A. in French; Minor in Anthropology
1991–1992	ESIEE (Paris, France)	Computer-science classes in French, at a French engineering school (the Ecole Supérieure d'Ingénieurs en Electronique et Electrotechnique)
1992–2009	Professional Coursework	Courses from Clarify, Continuus, Effective Training, MapInfo, Sun, Sybase

full-time employment

- since 5/08 Senior Software Engineer, Ricoh Innovations, Inc. (Cupertino, CA)**
Design and build software prototypes to elicit users' reactions to interactive software concepts, at a rate of two to four projects per year. Lessons are reported both to Ricoh, for use in designing future products, and to the clients, for use in improving their business processes. My projects have included web sites and standalone software that explore options for communicating with customers, automating daily business tasks, and understanding patterns of software usage. *Additional responsibilities:* explore and report on user-interface technologies useful for building these prototypes; mentor teammates in Java, Ruby, and Rails, teaching occasional classes; on-site customer research. Software teams of 1 or 2 people; project teams of up to 6 people. Used AJAX, C#, Flash, Java, JavaScript, jQuery, HTML, Ruby on Rails, WindowBuilder, XML, and Yahoo! Widgets in actual projects; also explored Flex, FaceBook (as a software platform), JSP, PaperVision3D, and Zinc. Windows and Macintosh.
- 8/06-5/08 Principal Engineer, Ricoh Americas Corporation (Cupertino, CA)**
Developed graphical user interfaces enabling users to view and control the services available in a print shop; designed and developed an engine enabling developers to describe those services programmatically, and display their capabilities in a human-readable way. *Additional responsibilities:* researched the print-industry standard Job Definition Format (JDF), and taught to teammates; implemented significant portions of a scalable software architecture supporting loosely coupled components; mentored coworkers in C# and Java; wrote a library of reusable, object-oriented components, including the multi-threaded "hot-folder watcher" by which many of our software modules communicate. Teams of up to 5 people. C#, Java, XML on Windows.
- 8/04-5/06 Research Programmer, Informedia research group, Carnegie Mellon University (Pittsburgh, PA)**
My full-time job, while earning a Master's degree part-time.
Designed and developed user interfaces and supporting architectures for the Informedia Digital Video Library (IDVL), a video-search, -display, and -analysis platform. *Sub-projects:* the IDVL Client, our main-line search application; the CareMedia Video Console, for viewing multiple time-synchronized videos simultaneously; and the Video Structure Editor, for tying individual video frames to real-life, human events. *Additional responsibilities:* redesigned the IDVL Client to have a true object-oriented architecture; conducted user studies for our participation in the annual TRECVID video-information-retrieval contest; mentored new developers. Developed numerous reusable, object-oriented GUI tools, including:
- *components and utilities:* joystick-like 2D scrollbar; collapsible window sliders; graphical, database-aware radio buttons; DirectShow video-playing wrapper
 - *windows:* *n*-speed video player; floor plan for controlling multiple time-synchronized video cameras; search-history tracker and replayer; "advanced search" window that helps the user map GUI controls to search-engine shortcuts
 - *windowing tools:* window-messaging and -creation architecture; pop-out window tabs
- Teams of up to 4 people. C#, Oracle SQL, SourceSafe, XSD, XML on Windows 2000/XP.
Publication (as contributor): Christel, M. G. and Conescu, R. M. 2005. Addressing the challenge of visual information access from digital image and video libraries. In Proceedings of the 5th ACM/IEEE-CS Joint Conference on Digital Libraries (Denver, CO, USA, June 07 - 11, 2005). JCDL '05. ACM Press, New York, NY, 69-78.
[DOI=http://doi.acm.org/10.1145/1065385.1065402](http://doi.acm.org/10.1145/1065385.1065402).
- 2/02-7/04 Instructor, DeVry Institute of Technology (New York, NY)**
Taught courses in designing and building database-driven Web applications, as well as courses in Java, systems analysis, and object-oriented design. Consulted numerous students, now professionals, on their personal and professional web sites. ASP, CSS, Java, JavaScript, SQL, XML on Windows.
- 2/00-8/01 Member of Technical Staff ("The UI Guy"), BroadRiver Communications (Atlanta, GA)**
Integrated Clarify, a customer-relationship management tool, into BroadRiver's 12-machine operations-support system, for use as a front end to that system. *Sub-projects:* trouble-ticketing workflow engine; one-click

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telephone-service provisioning system; integrated voicemail system. *Additional projects:* Extended Clarify's UI and database; designed corporate software-development process; helped redesign corporate Intranet, integrating Clarify's helpdesk product; rewrote portions of billing system. *Roles:* Served on architecture team; supported production systems; administered corporate version-control system; learned Clarify from a programmer's perspective, and taught it to other developers; mentored new UI programming staff. Teams of up to 6 people; one extended team of 22 people. Clarify, ClearBasic, JSP, HTML, SQRIBE, Oracle SQL, Continuous on Windows and Unix.

11/97-2/00 **Technical Team Lead, BellSouth.net (Atlanta, GA)**

Led the design and development of two major Web applications: the BellSouth Site BuilderSM, an e-commerce web-site construction kit for non-technical customers; and the Business Gateway, BellSouth's business-products web site. Provided UI guidance to architecture team for BellSouth's Virtual Private Network offering. Served as UI lead integrating the existing trouble-ticketing system with an interactive voice-response (IVR) system. Developed web pages for numerous BellSouth-sponsored web sites and projects, including Ernie the Talking Elf, a web site and mall kiosk. Mentored new developers. Performed extensive cross-browser compatibility testing on everything. Teams of up to 5 people; one extended team of 15 people. HTML, Informix SQL, Intershop, Perl, vi macros on Windows and Unix.

5/95-11/97 **Multimedia Developer, BellSouth Interactive Media Services (Atlanta, GA)**

Designed and developed major portions of the BellSouth Navigator, a video-on-demand browser for interactive TV, including its user interface, software architecture, and integration with the back-end video server. Enhanced and debugged Gain Interplay, the Navigator's embedded-system run-time engine and language parser. Teams of up to 3 people. awk, C, csh, Gain Momentum, Gain Interplay, make, regular expressions, Remedy, sh, SNMP, tcl/tk on Windows, Unix, and PowerTV.

9/92-5/95 **GUI Developer, Information Management Incorporated (Atlanta, GA)**

- *For AirTouch Cellular:* Added Macintosh-based credit-checking features to AirTouch's mainframe-based customer-management software. Team of 2 people. Blacksmith, Omnis 7² on Macintosh.
- *For the Norfolk Southern Corporation:* Developed significant portions of a Macintosh front end to Norfolk-Southern's billing system, enabling them to view customers' faxes on the same screen as their mainframe-based billing data and internal project assignments. Sub-projects: waybill editor; fax viewer; database-driven help system; numerous reusable, object-oriented GUI components. Team of 3 people. C++, MacApp, Sybase SQL, and an in-house screen-scraper on Macintosh and Unix.

1/92-7/92 **Intern, Thomson-CSF (Paris, France)**

Designed and built software to track and analyze the quality of subcontractors' software. PostScript, object-oriented Pascal on Windows 3.1 and HP LaserJet IIIsi.

professionally relevant projects from graduate school (Carnegie Mellon University, 2004-2006)

design

3/06-5/06 **"Squez" music player for Moms**

Project for "Interface and Interaction Design" class

Researched and designed a portable music player affording extremely simple, tactile ways to play music and share music with one's children. Team of 3 people.

2/06-3/06 **Cell phone search/mapping tool**

Project for "Interface and Interaction Design" class

Researched and designed a cell-phone interface enabling users to search for coffee shops, sort them by distance and available food, and display textual and graphical directions to get there. Team of 2 people.

1/06–2/06 **Car airflow control switches**

Project for “Interface and Interaction Design” class

Redesigned the physical control in my car that enables the user to change the direction of airflow from the heater, air conditioner, and defroster. Replaced the existing dial, containing a counterintuitive mapping of airflow directions to physical space, with a set of toggle switches that conform to both the shape and orientation of the human hand and the physical locations of the vents in the car.

4/05–5/05 **“Informedia” poster and user-interface tour**

Project for “Mapping and Diagramming” class and for my employer, Carnegie Mellon’s Informedia research group

Arranged approximately 25 windows from a complex search tool into a poster showing how to use each window, a normal sequence in which to use them, and examples of the content used in each window. Contained three levels of information, visible at 10 feet, 6 feet, and 1 foot away.

1/05–2/05 **Cozy wired jacket**

Project for “Wearable Computing” and “Mapping and Diagramming” classes

Designed a warm, fuzzy, fall/winter coat containing a cell phone, a heater, and arm- and waistbands that become snug when the air temperature drops.

design and development

1/06–8/06 **Robotic planning tool**

NASA’s Ames Research Center; Carnegie Mellon’s Human-Computer Interaction Institute

Capstone project for Master’s degree

Researched, designed, and developed a graphical tool enabling scientists and engineers to collaborate on the specification of long-term plans for remote, semiautonomous robots. Team of 8 people. *Analysis and design:* contextual inquiry, cognitive walkthrough, makestorming, paper prototyping, wireframes, and extensive user testing. *Code:* Java, Objective-C/Cocoa, Subversion on Macintosh.

9/05–12/05 **Robot dashboard**

NASA’s Jet Propulsion Laboratory; Carnegie Mellon’s Robotics Institute

Independent study; part of the PROSPECT project

Designed and developed tools to monitor the status of remote, semi-autonomous robots, store that status in a future-compatible format, and display the status using standard-looking graphics, such as an “artificial horizon,” a fuel gauge, and blinking alarms. Network-friendly: any component can “die” without affecting the others. Team of 6 people. C#, Flash/ActionScript 2.0, XML on Windows XP.

Publication (as contributor): E. Halberstam, L. Navarro, **R. Conescu**, S. Mau, G. Podnar, A.D. Guisewite, H. Brown, A. Elfes, J. Dolan, and M. Bergerman, “A Robot Supervision Architecture for Safe and Efficient Space Exploration and Operation,” Tenth Biennial International Conference on Engineering, Construction, and Operations in Challenging Environments: Earth & Space 2006 Conference, ASCE, March, 2006. http://www.ri.cmu.edu/pubs/pub_5233.html.

3/05–6/05 **Tactile-feedback vest and armband**

Project for “Wearable Computing” class; followup as independent study

Designed and developed a cap and vest that determine the distance to objects around the wearer, and represent those distances as vibrations on the wearer’s chest and abdomen—providing a low-resolution, tactile “display” of the objects around the wearer. Followup project involved a higher-resolution, flexible cushion, instead of a vest, that can be placed against the abdomen, arm, neck, or head. BASIC Stamp.

11/04–12/04 **Video-structure editor**

Project for “Software Architectures for User Interfaces” class and for my employer, CMU’s Informedia research group

Designed and developed a graphical editor enabling the user to load 10,000+ data points generated by a video parser, play the video snippets represented by those data points, and combine those data into higher-level, human-usable events (such as “John walks down the hallway”) via an easy-to-use drag-and-drop interface. C#, XML on Windows XP.

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9/04-10/04 **Custom scrolling environment**

Project for "Software Architectures for User Interfaces" class

Designed and developed a finite-state-machine interpretation of buttons, scrollbars, and a window's scrollable areas. Java, XML on Macintosh.

donated projects

12/07-... **PACTBank on-line banking prototype (in progress)**

PACTFund, a community-driven venture capital fund

Consulted on and developed a prototype for an on-line bank that enables volunteer hours to be used as currency. Team of 2 people. Ruby on Rails.

6/06-7/06 **Emergence Conference web site**

Project for the 2006 Design Conference at Carnegie Mellon University's School of Design

Consulted on and developed the interface between the Emergence conference web site and their back-end credit card processing system. Team of 3 people. HTML.

9/05-11/05 **Print Lab project-submission web site**

Print Lab, Carnegie Mellon University School of Art

Consulted on and developed a file-uploading and project-registration site. Team of 2 people. PHP, HTML.

10/05 **Data-Driven Flash Class**

Guest lecture given in the regular Flash/ActionScript class taught by Carnegie Mellon's School of Design

Designed and taught a 3-hour, example-driven curriculum, illustrating to non-programmers how to read XML-based, potentially dynamic data into Macromedia's Flash and display it. Flash/ActionScript 2.0, XML.