James A. Rising

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SOFTWARE DEVELOPMENT EMPLOYMENT

May '12 – Present	**Model Aggregation Site** Developed a Python/TurboGears site for empirical model crowd-sourcing, meta-analysis, and integration.
May '12 – Aug'12	**Liiiike, Inc.** iPad and Ruby on Rails Developer for a shopping deals mobile app.
Dec '09 – Aug '10	**Wired for Change** – Head advocacy developer and lead social network developer, developing online tools to help non-profits and political candidates organize and communicate (Java and SSJS).
Nov '09, May '11 – Oct '12	**EnginArt** Developed music app for Android and Symbian phones. Built webapp and social media interface for analyzing, manipulating, creating and managing audio files, in Python/TurboGears.
Jul '08 – Oct '09	**Virsona, Inc.** Chief architect, developing artificial intelligence chat bots for education and politics and associated webpages and tools, in C#, VB.NET, and ASP.NET.
Jul '07 – Jun '08	**Harmonix Music** C++ and Matlab development of speech analysis algorithms for RockBand on XBox 360, PS3, and PS2, and associated utilities.
Oct '05 – Jun '08	**SalientStills** C++ (DirectShow) and Java (JNI, AWT) contract development for screen and audio capture, hardware video output, windows UI features, and video analysis.
Aug '05 – Jun '08	**SoundSpectrum** PHP/MySQL and Perl contract web development and maintenance. Work includes building automated VeriSign and PayPal shopping and payment systems, a community-moderated plugin sharing subsite, and a maintenance framework.
Sep '05 – Jan '05	**Wave Arts, Inc.** C++ development of a conference VoIP utility, 3D and compressed audio codecs.
Sep '05 – Jan '05	**NormaTec, Inc.** Contract Microsoft Access development and MySQL database administrating for medical records, finances, and inventory.
Aug '03 – Aug'05	**Franklin W. Olin College** Electrical and Computer Engineering instructor, assisting classes in Discrete Signal Processing, Software Using Images and Sound, Introductory Electronics, Engineering Systems. Designed and taught Human System Dynamics. Research in navigation and curriculum.
Summer 2003	**iNeed.com** Programming full-time in Java, using JSPs, Jakarta Struts, and MySQL.
Summer 2001 – 2002	**Wave Arts, Inc.** Programmed full-time, in C, C++, and assembly, developing user-interfaces, signal processing functions, and patent research. Developed optimized vector library for sound manipulation, including server-client options.
Summer 2000	**EMC^2, Inc.** Programmed full-time, mostly in Visual C++ on products to archive, analyze, and display hardware configuration and databased performance data.
Summer 1999	**Terascape Software** Programmed full-time, on various projects, including work in InstallShield, Unix scripts, Visual Basic, Java, Perl, Microsoft Access, and Oracle.
Jul '97 – Jan '99	**D$_x$CG, Inc.** Translated SAS code for predicting medical costs into optimized C, and designed report program for summarizing individual cost predictions for Medicare and other models into population-specific statistics.

EDUCATION

2010 – Present	**Columbia University** – Doctorale Candidate in Sustainable Development, researching complex systems and human-environmental interactions.
1999 – 2003	**Massachusetts Institute of Technology** – Bachelor of Science in Philosophy, 2003.

COMPUTER EXPERIENCE

Programming Languages:
Considerable experience in C++ (C, C#, Objective-C), Python, Java, PHP, Ruby, Lisp, Matlab, R, SQL, VB, XHTML, and .NET. Some experience and work in Perl, Assembly, SAS, and Stata. Familiarity with several development frameworks and databases.

SOME ACTIVITIES AND PROJECTS

Jun '11 – Present	**LimeEffect App** Working with a designer to create a smartphone app offering personalized green-living challenges, with integration into social networks.
Jun '06 – Mar '09	**Travelers Network** Created a social network for travelers, built around a Google Maps-enabled blog and business reviews (Ruby on Rails). Employed an additional developer and designers.
2004 – 2005	**DSP First Lab Manual** Wrote extensive teaching manual and labs to go with *DSP First: A Multimedia Approach*, used by the Olin College Signal Processing class.
Spr. '01, '02, '07	**6.001 Tutorial Instructor** Taught recitations sections of MIT's introductory computer science course, designing my own labs and materials.

References, online publications and independent projects lists, source code examples, and curriculum vitae available upon request.