

A position involving Java/C++ Software Development.

## Code Review in support of Initial Release and/or Open-Sourcing of R&amp;D level codebases.

- Senior Java Consultant regarding language dynamics, best-practices, patterns and design.
- Principle Server-side Architect and Developer of a web-based (GIS) visualization system.
- Research and Development on the UVP (Universal Visualization Platform), an interactive visualization application/framework/toolset developed by IVPR.
- Research and Development on TEASE (Text-Event Application Sessioning Environment), a next-generation replacement for the UVP, which I conceived of and designed as my first thesis topic.
- Research and Development, in conjunction with Mass General Hospital and IBM Research (Haifa), on Breast and Ovarian Cancer Risk Prediction Models and HL7 compliant Electronic Medical Records.
- Research and Development in the interactive visualization of novel clustering algorithms.

2003 - 2004      Centers for Learning and Academic Support Services      Lowell, MA  
*Tutor*

CLASS provides free tutoring services to students at the University of Massachusetts, at Lowell.

- Tutoring of Undergraduate and Graduate Students in Mathematics and Computer Science.

2002 - 2003      The Nahant Group      Nahant, MA  
*Independent Consultant and Co-Founder*

The Nahant Group provided web-based solutions for Boston area non-profit organizations.

- Creation of a Patient Interview/Tracking System using HTML, J2EE (Apache Servlets) and MySQL.

2001 - 2002      The Laboratory for Computer Science at MIT      Cambridge, MA  
*Member of Technical Staff*

LCS (now CSAIL) hosts several research projects at the Massachusetts Institute of Technology.

- Development in Java and C++ (primarily on the client-side) on a Low-Bandwidth Search Engine.
- Creation in Win32 C++ of Registration (MFC) and eMail Transmission (MAPI) components.
- Creation in InstallAnywhere of the projects first deployable Alpha candidate.
- Team Lead in Project Review and Restructuring (code base, test plan, engineering protocols), facilitating Initial Release and Open-Sourcing of the project (see: <http://tek.sourceforge.net>).

2001      Dragon Systems/Lernout & Hauspie      Newton, MA  
*Interim Principal Release Engineer*

Dragon Systems was a leading provider of Speech Recognition Technology.

- Interim Principal Release Engineering and Crisis Management for a former employer operating with minimal staff while being held in receivership and undergoing corporate restructuring.
- Release Engineering using TLIBB, TLM, gMake, nMake, pMake, Perl, Python, and FTP.
- Redesign of Departmental Standards and Practices appropriate for drastically reduced staffing levels.
- Liaison to Microsoft, with respect to MSDN subscriptions, licensing, and WinXP Beta program.
- Liaison to local (Burlington, MA) and international (Ukraine) subcontracted development groups.

2000 - 2001      Atabok      Newton, MA  
*Member of Technical Staff*

Atabok is a provider of Secured Data Transfer and Digital Rights Management services.

- Creation of the Atabok Commerce Engine APIs (C\C++\COM\ISAPI\DCOM).
- Creation in C++ of Cross-Platform and Internationalized Objects (String, Date, Time).
- Creation in Win32 C++ of a COM-compliant Scheduler component (ala. Windows Task Manager).
- Creation of Departmental Standards and Practices for Software Development and Quality Assurance.
- Mentoring of junior developers and college interns.

2000      MCK Communications      Needham, MA  
*Junior Developer*

MCK Communications is a provider of Telephony products and services.

- Development in Win32 C++ of TAPI\TSAPI components to interface with proprietary hardware.
- Research and experimentation with third-party telephony hardware.

1997 - 1999      Dragon Systems      Newton, MA  
*Release Engineer*

Dragon Systems was a leading provider of Speech Recognition Technology.

- Maintaining the integrity of the code base, build process, and archive, for all major projects.
- Release Engineering using C++, Perl, Python, gMake, nMake, pMake, Timelock\Vbox, InstallShield, TLIBB\TLM, MS Developer Studio, MS Visual Source Safe.
- Secure Encapsulation of pre-existing products into Trial Editions using C++, Timelock, and Vbox.
- Mentored Research and Development in Win32 C++ of reusable software components.
- Consultant to Engineering on the development of a cross-platform and internationalized String library.

1997      SEVA Foundation      Berkeley, CA  
*Volunteer*

SEVA Foundation provides sight restoration surgeries and health care in India, Nepal, and Tibet.

- Development in MS Access of Merchandising and Customer Relations Databases.
- Public Relations at public outreach and fundraising events.

1997      Mind-Control Software      Berkeley, CA  
*Level Designer*

Mind-Control was one of the first startups to develop real-time multiplayer online computer games.

- Level Design of a three-quarter view real-time multiplayer online combat game ("Silencer").
- Game Design of massively multiplayer real-time online space exploration and fantasy games.
- Supervision of Art and Quality Assurance departments.
- Mentoring of junior developers and high school interns.

1991 –1996      The Princeton Review      Boston, MA. Berkeley, CA.  
*Site Director and Tutor*

The Princeton Review is a leading provider of standardized test preparation services.

- Classroom Instruction and Private Tutoring of test preparation curricula (LSAT, GRE, SAT).
- Mentoring and Supervision of fellow instructors.
- Sales Presentations to potential clients (and their parents).
- Site Management.
- Teacher Training.

## EDUCATION

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2003 - Present      University of Massachusetts at Lowell      Lowell, MA  
*Doctoral/Masters Student in Computer Science*

- Cumulative GPA of 3.975 with 4 A+'s.
- Completed requirements for the Masters degree in Spring 2007 (haven't filed the paperwork yet).
- Passed "with flying colors" the Doctoral Qualifying Exams in Algorithms, Foundations, and Design of Programming Languages in my second year of the Masters program (2006).
- Teaching Assistant for the department of Mathematics (2006 - present).
- Teaching Assistant for the department of Computer Science (2006).
- Research Assistant at the Institute for Visualization and Perception Research (IVPR) (2005 – 2008).
- Research Assistant at the Center for Biomolecular and Medical Informatics (CMBI) (2005 – 2008).
- Information Sciences, Engineering and Technologies (ISET) Research Scholar (2005 – 2007).
- Member of the Algorithms Research Group (2003 – 2005).
- Member of the Database Systems Research Group (2003 – 2005).
- President of the Human-Computer Interaction (HCI) club (2006 – present).

- Senator of the Human-Computer Interaction (HCI) club (2005 - 2006).
- Member of the Data-Mining and Data Visualization club (2005 - 2006).
- Treasurer of the Scholar Association for Computing Machinery (SACM) club (2003).

2001                      Massachusetts Institute of Technology                      Cambridge, MA  
*Special Status Student*

- Successful completion of the Laboratory in Software Engineering (Course 6.170) for Graduate credit.
- Obtained the professional and academic recommendations of the course professor (Daniel Jackson).

2001 Harvard Summer School Cambridge, MA  
*Graduate Student*

- Successful completion of “Laboratory Electronics: Analog and Digital Circuit Design” (PHYS S123), an eight week intensive course covering a two semester sequence, for Graduate credit.

1989 - 1994      The University of California at Berkeley      Berkeley, CA  
*Undergraduate Student*

- Bachelor of Arts in Mathematics, 1994.

1986 - 1988      Newton South High School      Newton, MA  
*Work-Study Program Participant*

- Successful completion of the Advanced Placement course in Computer Science during my Junior year, receiving full marks on the AP Exam in Pascal.
- Successful completion of a one-year paid internship with the computer department during my Senior year; responsibilities included lab supervision, systems programming (PDP-11), and mentoring.

## REFERENCES

Stephen Pennell [stephen\\_pennell@uml.edu](mailto:stephen_pennell@uml.edu)

- Professor Pennell is the Mathematics Department Chair at UMass Lowell.

Lee Jones [lee\\_jones@uml.edu](mailto:lee_jones@uml.edu)

- Professor Jones teaches courses related to Statistics at UMass Lowell.

Konstantin Rybnikov [konstantin\\_rybnikov@uml.edu](mailto:konstantin_rybnikov@uml.edu)

- Professor Rybnikov teaches courses related to Geometry at UMass Lowell.

Alexander Kheifets [alexander\\_kheifets@uml.edu](mailto:alexander_kheifets@uml.edu)

- Professor Kheifets teaches courses related to Analysis at UMass Lowell.

Giampiero Pecelli [giam@cs.uml.edu](mailto:giam@cs.uml.edu)

- Professor Pecelli teaches courses in Programming Languages (Scheme, ML, Prolog) at UMass Lowell.

Gary Livingston [gary@cs.uml.edu](mailto:gary@cs.uml.edu)

- Professor Livingston teaches courses related to Machine Learning and AI at UMass Lowell.

Karen Daniels [kdaniels@cs.uml.edu](mailto:kdaniels@cs.uml.edu)

- Professor Daniels teaches courses related to Algorithms at UMass Lowell.

George Grinstein [grinstein@cs.uml.edu](mailto:grinstein@cs.uml.edu)

- Professor Grinstein leads the IVPR and CBMI laboratories at UMass Lowell.

Alex Baumann [abaumann@cs.uml.edu](mailto:abaumann@cs.uml.edu)

- Alex was my co-designer and co-developer on the Web-based GIS project at the IVPR.

Suzanne Gamache

[suzanne\\_gamache@uml.edu](mailto:suzanne_gamache@uml.edu)

- Suzanne runs the Centers for Learning and Academic Support Services.

Professor Daniel Jackson

[dni@mit.edu](mailto:dni@mit.edu)

- Professor Jackson teaches courses related to Software Engineering at MIT.

David Hegarty

[david\\_hegarty@yahoo.com](mailto:david_hegarty@yahoo.com)

- David is a former partner from The Nahant Group, and former colleague from Atabok.

Alan Frankel

[Alan.Frankel@dictaphone.com](mailto:Alan.Frankel@dictaphone.com)

- Alan is a former colleague and mentor from Dragon Systems.

Duffy O`Craven

[duffy@alum.mit.edu](mailto:duffy@alum.mit.edu)

- Duffy is a former mentor from Dragon Systems.

Liv Toftner

[Elizabeth.Toftner@teradyne.com](mailto:Elizabeth.Toftner@teradyne.com)

- Liv is a former manager from Dragon Systems.