

Steven E. Matuszek

Computer Scientist

steve [at] matuszek [dot] net
http://matuszek.net/

3030 Oak Green Circle, Apartment E
Ellicott City, Maryland 21043

Objective

I would leave my teaching position only to **teach computer science at the university level**, to contribute to an organization that is **advancing the field of computer science**, or to utilize both my programming and creative skills for a design or gaming company.

Location

Baltimore–Columbia area

Education

B.S. computer science, University of Maryland Baltimore County, May 1998
Graduate study, University of North Carolina at Chapel Hill, 1999–2000
M.S. computer science, UMBC, December 2003

Graduate Record Examinations
verbal 790, quantitative 800, analytical 800, computer science 830

Computer science study includes

artificial intelligence (general, agent architectures, multi-agent systems, ontology), **graphics** (general, procedural, signal processing, visualization), parallel and **distributed systems, user interfaces**, operating systems, algorithms, automata, software engineering, object-oriented design, architecture, cryptography

Other study includes

numerical analysis, statistics, cartography, photography, painting, **computer art, computer animation**

Research

UMBC

Database-backed ontology stores
Cognitive architectures
Web-based distributed rendering
Procedural solid texturing
Research assistantship, Dr. David Ebert/Graphics, Animation and Visualization Laboratory

UNC-CH

Image-based rendering, immersive exotic environments
Fault-tolerant, extensible Web gaming system
Research assistantship, Dr. Henry Fuchs/Augmented Reality project

Skills

Programming languages

Java, C, C++, Visual Basic, PHP, ML, Tcl, JavaScript, AppleScript, Perl

Artificial intelligence

RDF, OWL, **Jena**, Lisp, Prolog, ACT-R

Graphics

OpenGL, Java 2 graphics APIs, Java threading, Visual C++ with MFC, GLUT, VTK, MEL

Networking

BSD sockets, Java networking, RMI, RPC, NFS

Web back-end

Java Servlets, XML, PHP, ASP, JSP, **SQL, MySQL**, Apache, Tomcat, IIS, MS SQL Server

Web front-end

HTML, CSS, DHTML, scripting, content deployment, W3C and accessibility compliance

Adobe Photoshop, Macromedia Dreamweaver, **Macromedia Flash** including ActionScript and Generator

Operating systems

Mac OS (including X), Unix (various including Linux), Windows (all versions)

Other graphics applications

CorelDRAW, Adobe Illustrator, Macromedia Director, MetaCreations Poser, Ray Dream Designer

Alias|Wavefront Maya: both creative work and technical (MEL) work, in artist/programmer teams

Other skills

Experience in typography, graphic design, and printing, photography, and writing.
Very interested in linguistics and speak Spanish, French, and some Wolof, German, and Japanese.
Strong communication skills, written and oral. Work effectively in teams and with clients or users.
Proficient in classroom instruction, with excellent evaluations and student approval ratings.

Experience

July 2001– : Lincoln Technical Institute (Columbia, MD)

Instructor in Computer Programming with Web Technologies curriculum. Courses taught include introductory, programming logic, object-oriented programming, beginning Java, intermediate Java, advanced Java, cryptography with Java, ASP, SQL and databases, principles of e-commerce, Visual Basic, XML, HTML, JavaScript, Macromedia Flash.

Involved in all aspects of educational experience, including curriculum input, planning lessons and preparing environment, presenting material, assessing student performance, and individual tutoring.

Maintaining discipline and holding students, and myself, to a high standard of conduct and integrity in accordance with the goals and mission of Lincoln Technical Institute.

March 2001–May 2001: Gr8, LLC (Baltimore, MD)

Senior Applications Developer for interactive agency. Provided cross-browser and W3C-compliant JavaScript and DHTML capabilities for interactive web pages. Worked closely with graphic designers to integrate form with function and retain aesthetic vision through deployment. Created database-driven Flash applications. Designed and implemented a scalable, web-enabled kiosk application.

September 2000–March 2001: University of North Carolina at Chapel Hill, Academic Technology and Networks

Worked on a consultant basis for ATN. Investigated solutions for improved user interface to SAM-FS mass file storage system, including writing platform-independent client in Java 2.

June–August 2000: Osprey Technologies Division, ViewCast.com (Morrisville, NC)

Created capture and control applications for digital and streaming media cards. Created GUIs for applications using Visual C++ and MFC. Debugged and tested hardware and Software Development Kit (SDK). Served as Release Engineer, using InstallShield to create releases for product drivers and SDKs.

June 1999–May 2000: Computer Science Department, University of North Carolina at Chapel Hill

Served as a Research Assistant. Developed C++ and Java programs for the immersive panoramic rendering of digitally recorded environments.

June 1998–May 1999: Computer Science Department, UMBC

Served as a Teaching Assistant. Courses were in Scripting Languages and Creating Web Services.

Served as a Research Assistant. Developed C++ programs for immersive data visualization in a team environment.

Fall 1997, Spring 1998: Computer Science Help Center, UMBC

Employed by CS department to tutor in CS courses. Tutored other students both in theory and in programming in C, C++, Java and assembly. Acted as student assistant to CSHC director Sue Bogar.

June–August 1995, January 1996, January, June–August 1997: Unisys Computer Corporation (Malvern, PA)

Worked as an intern for the Natural Language group. Worked on proprietary NL system, building Web pages, prototype telephony software, and EBNF grammars; debugged and contributed to best-process repository. Created computer animations for use in a program for the treatment of language disorders. Assembled animation system and instructed traditional artist in its use.

Affiliations

Member, Association for Computing Machinery (ACM)
Member, ACM Special Interest Group, Graphics (SIGGRAPH)
Member, American Association for Artificial Intelligence (AAAI)
Founding Member, UMBC Macintosh Users Group
Member, Animators at UMBC

References available upon request.