

Elena Machkasova

Curriculum Vitae

Department of Computer Science
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Education:

- May 2002: Boston University, Ph.D. in Computer Science. Advisor: Assaf Kfoury (Boston University), co-advisor: Franklyn Turbak (Wellesley College).
- Fall 1994: University of Southern Maine, M.S. program in Computer Science (left for Boston University in January 1995).
- June 1989: M.S. in Applied Mathematics, Moscow Oil and Gas Institute, Department of Applied Mathematics (5 year program analogous to BA/MS program).

Experience:

- Fall 2001 - present: Instructor in Science Laboratory, Computer Science Department, Wellesley College. Responsible for preparing and teaching computer laboratory sections in introductory Computer Science courses for CS majors and non-majors. Participate in developing course materials.
In Spring 2002 I developed and taught a course “Introduction to E-commerce” – a new addition to Wellesley Computer Science curriculum.
- Spring 1995 - Fall 1998, Fall 1999, Spring 2001: Teaching Fellow, Computer Science Department, Boston University.
- Spring 1999, Summer 1999, Academic year 2000: Research Fellow, Computer Science Department, Boston University.
- Summer 1996, Summer 1997, Summer 1998: Instructor, Computer Science Department, Boston University.
- 1989 - 1991: Software Engineer, Automated Solutions for Gas Industry, Moscow, Russia.

1987 - 1989: Computer Programmer (part-time), Moscow Oil and Gas Institute, Moscow, Russia.

1987 - 1989: Moscow High School #57. Co-taught advanced mathematics courses for high school students specializing in mathematics (part-time).

Research groups:

Fall 1995 - present. I am a member of the Boston-based Church project (named after Alonzo Church) – a research group on foundations, design principles and implementation techniques of programming languages and related systems.

Publications:

1. Elena Machkasova and Franklyn Turbak. A Calculus for Link-time Compilation. In *Programming Languages and Systems, 9th European Symposium on Programming*, vol. 1782 of *Lecture Notes in Computer Science*, Springer-Verlag, 2000.
2. Elena Machkasova “Computational Soundness of Non-confluent Calculi with Applications to Modules and Linking”. PhD thesis. Boston University, Spring 2002.
3. Elena Machkasova and Franklyn Turbak. A Computationally Sound Call-by-value Module Calculus. Technical Report, Computer Science Department, Boston University, to appear.

Presentations:

October 2002: “Computational Soundness of Non-confluent Calculi”, New England Programming Language and Systems Symposium (NEPLS), Worcester, USA.

March 2000: “A Calculus for Link-time Compilation”, European Symposium on Programming, Berlin, Germany.

Conferences and Workshops Attended:

July 2002: Federated Logic Conference (FLoC), Copenhagen, Denmark.

April 2000: The EEF Foundations School in Deduction and Theorem Proving’00, Heriot-Watt University, Edinburgh, UK.

Courses Taught:

- Developed and taught a course “Introduction to E-commerce” (Spring 2002, Wellesley College). It is an upper undergraduate course on E-commerce technology with an intensive Java programming component. The core of the course is a semester-long project on building a database-backed web site using Java servlets and JDBC, as well as other Java technologies. The course material also includes basics of cryptography and Internet security.
- Laboratory sections for an introductory Computer Science course for CS majors with intensive Java programming. Wellesley College, 2001-present.
- Laboratory sections for an introductory Computer Science course for non-majors: introduction to Internet, HTML, Javascript. Wellesley College, 2001-present.
- Introduction to Computer Science (with C programming) for CS majors. Boston University, Summer 1998.
- Introduction to Computer Science for non-majors: introduction to computers and Internet, HTML. Boston University, Summer 1996, Summer 1997.
- Laboratory and discussion sections for a middle-undergraduate course on Data Structures with C++ (C in earlier years). Boston University, Spring 2002, Fall 1998, and earlier.
- Discussion sections for an upper-undergraduate course on Programming Languages. Boston University, Fall 1999.
- Laboratory and discussion sections for Introduction to Computer Science for CS majors (with C++ programming, C in earlier years). Boston University, Fall 1997, Spring 1998.

Students Advised:

- Alice Tiao. CS250H Independent Study project: “Improving CS111 course software”. The project focuses on portability of Java software used in CS111 course to PCs and LINUX machines (currently many programs work only on a Macintosh). Wintersession 2003.
- Kristyn Rogers, Emily Hahn. CS350 Independent Study project: “Automation of RFQ Process”. The project is done at Raytheon and di-

rectly supervised by Raytheon employees. My function as an advisor is to make sure that the project satisfies Wellesley's requirements for CS350 and to advise the students in general project-related issues. Fall 2002.

Teaching Awards:

1996, 1998: Teaching Fellow of the Department Award, Boston University.

Personal:

Born October 16, 1966 in Moscow, USSR.

US Permanent Resident (green card), citizen of Russia.

Married, 2 children.

References:

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