Jakov Kučan

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Education:

- **MASSACHUSETTS INSTITUTE of TECHNOLOGY,** Cambridge, MA
  Department of Mathematics
  Doctor of Philosophy, February 1997. Thesis: "Methatheorems about Convertibility in Typed Lambda Calculi", under supervision of Prof. Albert R. Meyer.
- **UNIVERSITY of PENNSYLVANIA,** Philadelphia, PA
  School of Arts and Sciences
  Master of Arts in Mathematics, May 1991.
- **UNIVERSITY of PENNSYLVANIA,** Philadelphia, PA
  School of Engineering and Applied Science
  Bachelor of Science and Engineering in Computer Science and Engineering, May 1991. Senior thesis: "A Programming Language Based on Sets and Algebras".
- **UNIVERSITY of ZAGREB,** Zagreb, Croatia
  Electro-technical Faculty
  Finished two years of electrical engineering program (September 1986 – July 1988). Transferred to University of Pennsylvania in Fall 1988.

Work Experience:

- **Department of Computer Science, Brandeis University** Waltham, MA
  November 1996 – June 1998
  Postdoctoral Fellow in "Logic and Computation" research group headed by Prof. Harry Mairson.
- **Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology** Cambridge, MA
  January 1996 – May 1996
  Teaching Assistant in *Discrete Math for Computer Science.*
- **Lotus Development Corporation** Cambridge, MA
  June 1995 – December 1995
  Worked in Lotus Research and Development group headed by Dr. Irene Greif. Worked with J. Patterson, M. Day, and S. Whittaker on the design and prototype development of the *Notification Server*—an infrastructure that supports multi-user applications.
- **Department of Mathematics, Massachusetts Institute of Technology** Cambridge, MA
  September 1991 – May 1995
  Teaching Assistant in a variety of courses, including *Theory of Computation*, *Probability*, *Complex Calculus*, *Dynamical Systems*, etc.
- **Lotus Development Corporation** Cambridge, MA
  Summer 1993, Summer 1994
  Worked in Lotus Research and Development group headed by Dr. Irene Greif. Developed a prototype application to test feasibility of using Lotus Notes infrastructure for real-time communication. Worked on prototype application designed to aid interpersonal communication, workgroup organization and *ad hoc* workflow.

- **Microsoft Corporation** Redmond, WA
  Summer 1991, Summer 1992
  Software Development Engineer. Implemented a module for CodeView interactive debugger. Involved in implementation of FORTRAN PowerStation compiler.
- **GRASP Lab, University of Pennsylvania** Philadelphia, PA
  June 1990 – May 1991
  Assistant. Assisted in research on statistical analysis of noise in digital camera. Worked on documentation and debugging of a picture manipulation package under UNIX/X11.
- **Department of Mathematics, University of Pennsylvania** Philadelphia, PA
  January 1990 - May 1991
  Teaching Assistant in *Abstract Algebra.*

Honors and Prizes:

- A.P. Godsha Engineering Prize, U. of Pennsylvania, May 21 1991, for displayed grasp of mathematical principles underlying engineering.
- Received B.S.E. from U. of Pennsylvania with Magna Cum Laude, May 21 1991.
- Member of *TBΠ* Engineering Honor Society, Delta of Pennsylvania, November 20 1989.
- Placed on Dean's List for 1988-1989, University of Pennsylvania.

Backgroud/Interests:

- Citizen of Croatia (have J-1 visa status).
- Have experience programming in variety of programming languages including C++, C, ML, etc.
- Fluent in Croatian. Have some knowledge of German.
- Like flying sailplanes and aircraft. Member of MIT Soaring Association — served on the board of directors for two years.

Publications:

- J. Kučan and L. Roversi. Optimal Reduction as Interactions on Typed Graphs. Submitted to 25th ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages.
- J. Kucan. Another Look at "Theorems for Free!". Unpublished manuscript. An extended version will be submitted for publication as joint work with H. Mairson and A. Meyer.
- J. Kučan. Metatheorems about convertibility in typed lambda calculli: applications to contionuations and "Free Theorems". PhD Thesis, Massachusetts Institute of Technology, Cambridge, MA, February 1997.
- J. Kučan. Retraction approach to CPS transform. Presented at the *2nd ACM SIGPLAN Workshop on Continuations*, Paris, France, January 1997.
- J.F. Patterson, M. Day, and J. Kučan. Notification Servers for Synchronous Groupware. Presented at the *ACM Conference on Computer Supported Collaborative Work (CSCW 96)*, Boston, MA, November 1996.
- D. McAllester, J. Kučan, and D. F. Otth. A proof of strong normalization of F_2, F_ω and beyond. *Information and Computation*, 121(2):193–200, September 1995.