

January 18, 2013

I would like to apply for the position of lecturer in computing sciences.

My research area is in automata theory, a branch of theoretical computer science. It has immediate connections with mathematical logic, game theory, and formal verification. Although my work is theoretical and mathematical in nature I recently took a joint postdoctoral position at IST Austria and TU Vienna with the aim of extending my reach: my current work involves the description and analysis of distributed algorithms and systems.

As an expositor I have written or co-written a number of surveys of my sub-field, each for a different audience (logicians, automata theorists, computer scientists using logical methods). I have cultivated collaborators in New Zealand (Bakhadyr Khoussainov was my PhD supervisor), the United States (I collaborated with Moshe Vardi as a graduate student), Singapore and Europe.

My CV reflects that I have taught at a variety of levels, including courses in discrete mathematics, mathematical logic, and computation. My undergraduate teaching evaluations include statements such as

Professor was very well prepared and made us really understand what we were learning . . . Instead of memorizing formulas, he helped us understand what we were learning, why we were learning it and why it was useful.

I would like to bring your attention to my supervision of an NSF funded Research Experience for Undergraduates. We produced two papers (accepted to the journal *Theoretical Computer Science* and the conference *GandALF 2012*). I am currently co-supervising an undergraduate who visited us from India.

On a personal note, I have an inclination to engage with others about their research and teaching. I enjoy environments where people are happy to talk clearly and without jargon about their work. I am particularly interested in talking with scientists. To illustrate, I recently created a computer science seminar at IST Austria that tries to deepen the conversations between computer scientists as well as with those natural scientists using computational ideas. I am also on the organising committee of a one-day symposium to be held at IST Austria devoted to describing and analysing shape in mathematics and biology.

Thank you for your consideration,

Sasha Rubin  
sasha.rubin@gmail.com