

Curriculum Vitae

August 2007

Vikranth Rao Bejjanki
Graduate Student
Department of Brain and Cognitive Sciences
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Date of Birth: April 5, 1982
Nationality: Indian

Education

- August 2004- Ph.D. student in Brain and Cognitive Sciences, University of Rochester
Advisor: Dr. Alexandre Pouget Expected Graduation Date: June 2009
- July 2007 Graduate Summer School on Probabilistic Models of Cognition: The Mathematics of
Mind, UCLA, Los Angeles, CA
- August 2006 The C.I.A.R. Summer School on Learning and Vision in Biology and Engineering,
Toronto, Canada
- August 2005 The E.U. Advanced Course in Computational Neuroscience, Arcachon, France
Project: *Effect of attention on information processing in a network of cortical
neurons*
- June 2005 Summer School on Math and Brain, Jussieu Institute of Mathematics, Paris, France
- June 2004 B.S. *with distinction* in Computer Engineering, State University of New York at
Buffalo
Advanced Honors Thesis: *Princess Cassie: An embodied Cognitive Agent in a
Virtual World*
Departmental Honors Project: *Natural Language Processing without human
assistance*
- June 2004 B.A. *with high distinction* in Cognitive Science, State University of New York at
Buffalo
Thesis: *The Role of Predictability and Eye Movements in Linear Representational
Momentum*

Awards and Fellowships

- 2004-2008 Departmental Fellowship for Graduate Study, Brain and Cognitive Sciences,
University of Rochester

- 2004-2008 Presidential Fellowship for Graduate Study, State University of New York at Buffalo (declined in favor of the Departmental Fellowship for graduate study at the University of Rochester)
- 2003-2004 Motorola Senior Scholarship, Department of Computer Science and Engineering, State University of New York at Buffalo
- 2001-2004 Advanced Honors Scholar, State University of New York at Buffalo
- 2001-2003 Dean's List, State University of New York at Buffalo
- 2000-2003 School of Engineering Dean's List, State University of New York at Buffalo
- 2002, 2004 Listed in Who's Who of students in American Universities and Colleges

Research Experience

- 2004- Computational Neuroscience Laboratory of Dr. Alexandre Pouget
Department of Brain and Cognitive Sciences
University of Rochester, Rochester, NY
- Exploring theories of population coding, information processing and statistical inference in the visual cortex using simulated networks of spiking neurons.
- 2002-2004 Visual Perception Laboratory of Dr. William C. Schmidt
Department of Psychology
State University of New York at Buffalo, Buffalo, NY
- Explored the role of eye movements and predictability in Linear "Representational Momentum"
- 2002-2004 Artificial Intelligence Laboratory of Dr. Stuart C. Shapiro
Dept. of Computer Science and Engineering
State University of New York at Buffalo, Buffalo, NY
- Developed artificially intelligent computational agents embodied as actors in a Virtual Drama, as part of the VR/Agents group at SUNYAB
- 2002-2004 Contextual Vocabulary Acquisition Group
Dept. of Computer Science and Engineering
State University of New York at Buffalo, Buffalo, NY
- Developed a Generalized Augmented Transition Network (GATN) grammar for Natural Language Processing, with Dr. William J. Rapaport.

Teaching Experience

- Fall 2006 Teaching Assistant
Experimental Design and Analysis
Instructor: Dr. David Knill, Brain and Cognitive Sciences, UR

Spring 2006 Teaching Assistant
Foundations of Cognitive Science
Instructor: Dr. Robert Jacobs. Brain and Cognitive Sciences, UR

Spring 2005 Teaching Assistant
Cognitive Psychology
Instructor: Dr. Daniel Grodner, Brain and Cognitive Sciences, UR

Spring 2004 Student Assistant (Undergraduate Teaching Assistant)
Introduction to Microprocessors (Laboratory)
Instructor: Dr. Kris Schindler. Computer Sc. & Engineering., SUNYAB

Spring 2003 Student Assistant (Undergraduate Teaching Assistant)
Introduction to Microprocessors (Laboratory)
Instructor: Dr. Kris Schindler. Computer Sc. & Engineering., SUNYAB

2001-2004 Academic Tutor
Athlete Academic Services
State University of New York at Buffalo, Buffalo, NY

Professional Experience

2003-2004 Software Development Intern
Software Development Division
Computer S.O.S., Cheektowaga, NY

2000-2004 Computing Consultant
Academic Services, Computing and Information Technology
State University of New York at Buffalo, Buffalo, NY

Publications

Refereed Conference Proceedings:

Josephine Anstey, Dave Pape, Stuart C. Shapiro, and Vikranth Rao, Virtual Drama with Intelligent Agents, *Proceedings of the Ninth International Conference on Virtual Systems and MultiMedia (V'SMM)*, Montreal, Quebec, Canada, October 15-17, 2003.

Refereed Conference Presentations:

Bejjanki V.R., Ma W.J., Beck J.M., Pouget A., Perceptual learning as improved Bayesian inference in early sensory areas. Poster and oral spotlight presentation at the *Computational and Systems Neuroscience Conference (CoSyNe)*, Salt Lake City, Utah, February 22-25, 2007.

Beck J.M., Bejjanki V.R., Pouget A., Linear Fisher information in a network of LNP neurons. Poster presented at the *Computational and Systems Neuroscience Conference (CoSyNe)*, Salt Lake City, Utah, February 22-25, 2007.

Vikranth B. Rao, William C. Schmidt, The role of predictability and eye movements in linear Representational Momentum. Poster presented at the *13th Annual Meeting of the Canadian Society for Brain, Behavior and Cognitive Science*, Hamilton, Ontario, Canada, June 12-14, 2003.

Non-Refereed Presentations

Vikranth B. Rao, William C. Schmidt, The role of predictability and eye movements in linear Representational Momentum. Poster presented at the *State University of New York at Buffalo, Department of Cognitive Science, Student Poster Session*, Buffalo, NY, April 9, 2003

Service

At SUNY Buffalo:

- **Residence Hall Advisor** (5/2003 – 5/2004)
I was responsible for the daily support of 36 students specifically and was generally responsible for over 600.
- **Volunteer Academic Tutor** (01/2003 – 5/2004)
I was a volunteer academic tutor for the Department of Linguistics at SUNYAB. I worked with Freshman and Sophomore level students, tutoring them in entry-level linguistics classes.
- **Assistant Coach (Volunteer), Men's Varsity Tennis** (8/2001- 12/2002)
As an undergraduate assistant coach in the SUNYAB Athletic program, my work involved analyzing team strengths/weaknesses and developing strategies. I developed comprehensive match analysis software and helped the team post an undefeated fall season.
- **Member, Student Athlete Advisory Committee** (8/1999 - 12/2000)
This work involved ensuring that student athletes' concerns, with respect to shouldering the dual responsibilities of scholarship and athletics, were adequately addressed.

Honorary Memberships

- Tau Beta Pi, national Engineering Honors Society
- Golden Key, International Honors Society
- Eta Kappa Nu, Electrical and Computer Engineering Honors Society

Technical Skills

Extensive programming experience and proficiency in multiple computer languages and operating system platforms.

Operating Systems:

Microsoft Windows
Unix/Linux
Solaris CDE

Applications:

Latex, Tex
Microsoft Office Suite
Adobe suite
Electronic – Workbench
DB Designer
Most Internet Applications

Programming Languages:

Java
C/C++, V-C++
Visual Studio
Common Lisp
SNePS suite of languages
PHP
MySQL
Basic/V-Basic
MATLAB

Research Interests

- Computational Neuroscience
- Cognitive Science
- Machine Learning
- Artificial Intelligence
- Computational Linguistics
- Knowledge Representation and Reasoning
- Cognitive Psychology