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Onkur Sen

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Education

Stanford University
September 2014 — June 2016 (expected)
M.S. Computer Science
Dual Depth: AI & HCI

Rice University
August 2010 — May 2013
B.S. Physics, B.A. Mathematics
Minor: Computational and Applied Mathematics

Software Engineering Experience

Palantir May 2013 — September 2014
Forward Deployed Engineer (Philanthropy Team) **Java**

- Developed custom dashboard visualizations of commitments by the Clinton Global Initiative (CGI) over the past ten years
- Maintained and upgraded infrastructure for the National Center for Missing and Exploited Children (NCMEC)
- Implemented secure password hashing and executed cloud migration for START/UMD Global Terrorism Database

Plum District May 2012 — August 2012
KPCB Engineering Fellow **Ruby/Rails**

- Implemented tracking mechanism for Remarketing, Omniture, and Google Analytics
- Corrected redemption of vouchers and allowed view of past offers in business center

TripAdvisor December 2011 — January 2012
Software Engineer Intern **Java/Velocity**

- Removed cross-site scripting (XSS) vulnerabilities and improved display of Facebook likes, ratings, and recommendations

Research

Apparition Spring 2014 — Present
Advisor: Dr. Michael Bernstein, Stanford University **JavaScript (Meteor)**

- Developing webapp that utilizes crowdsourcing around a Method Draw canvas to quickly prototype interfaces

Searching for Supersymmetric Top Quarks at the LHC Fall 2012 — Spring 2013
Advisor: Dr. Paul Padley, Rice University **Python**

- Used boosted decision trees in ROOT TMVA to isolate decay of stop quarks from background top-top interactions
- Extended on phenomenological data and theory from Bhaskar Dutta et al. (Texas A&M)
- **Publication:** Sen, O. and Padley, B.P. Searching for Supersymmetric Top Quarks at the LHC [Thesis]. April 22, 2013.

Melody Analysis and Harmony Generation Fall 2011 — Fall 2012
Advisor: Dr. Kurt Stallmann, Rice University **Python**

- Determined key of input score given only melodic line and generated complementary harmonic progression
- **Publication:** Sen, O. and Stallmann, K. Analysis of Melody Through Key Definition and Generation of Complementary Harmonies. Rice Undergraduate Research Symposium. Houston, TX, April 13, 2012.

Computationally Generating Musical Variations Fall 2009 — Fall 2011
Advisor: Dr. Sandip Sen, University of Tulsa **Java**

- Created systematic framework for representing musical scores and used genetic algorithms to create variations on themes
- **Publication:** Sen, O. Creating Musical Variations Using Genetic Algorithms. *American Junior Academy of Sciences.* Washington, DC, February 16−20, 2011.

Social Networks and Norm Emergence Fall 2008 — Summer 2009
Advisor: Dr. Sandip Sen, University of Tulsa **Java**

- Analyzed comparative speed of emergence of a norm in social networks with different topologies and behavioral patterns
- **Publication:** Sen, O. and Sen, S. Effects of Social Network Topology and Options on Norm Emergence. *Lecture Notes in Artificial Intelligence* Vol. 6069, p. 211−222, Springer-Verlag, 2010.

Social Dilemmas and Aspiration Levels Fall 2007 — Summer 2009
Advisor: Dr. Sandip Sen, University of Tulsa **Java**

- Developed algorithmic approach to solve the Tragedy of the Commons in a multi-agent system using aspiration levels
- **Publication:** Sen, O. and Sen, S. Solving the Tragedy of the Commons by Adapting Aspiration Levels. *Proceedings of COIN@IJCAI09.* San Diego, CA, July 11, 2009.

Projects

Contagion: model of diseases spreading across social networks (Hack Week)		**Python, D3**	2013
Rice University Catalyst: website	catalyst.rice.edu	**HTML/CSS**	2011—2013
Rice University South Asian Society: website	sas.rice.edu	**HTML/CSS**	2011—2013