657 Everett Ave #4, Palo Alto, CA 94301
(918) 407−2319

Onkur Sen

onkursen@gmail.com
github.com/onkursen

EDUCATION

Rice University, August 2010 — May 2013
B.S. Physics, B.A. Mathematics
Minor, Computational and Applied Mathematics
GPA: 3.57/4.00

ACADEMIC HONORS

Sigma Pi Sigma Inductee	May 2013
Rice Trustee Distinguished Scholar	August 2010
Rice Century Scholar	August 2010
Robert C. Byrd Scholar	May 2010

SOFTWARE ENGINEERING EXPERIENCE

Palantir, Forward Deployed Engineer (Philanthropy Team)   **Python, Java** | May 2013 — Present
- Integrated parcel data on sites affected by May 2013 Oklahoma City tornado to aid disaster relief efforts by Team Rubicon
- Developing global/public health instance combining open public data, custom metrics, and innovative visualizations

Plum District, KPCB Engineering Fellow   **Ruby/Rails** | May 2012 — August 2012
- Implemented tracking mechanism for Remarketing, Omniture, and Google Analytics
- Fixed view of past offers in business center and corrected redemption of vouchers and deals

TripAdvisor, Software Engineer Intern   **Java/Velocity** | December 2011 — January 2012
- Removed cross-site scripting (XSS) vulnerabilities and implemented JavaScript escaping for text
- Improved relevance of display of Facebook likes, ratings, and recommendations

RESEARCH

Apparition   Spring 2014 — Present
Advisor: Dr. Michael Bernstein, Stanford University   **JavaScript**
- Building webapp using crowdsourcing to increase efficiency of prototyping interfaces

Searching for Supersymmetric Top Quarks at the LHC   Fall 2012 — Spring 2013
Advisor: Dr. Paul Padley, Rice University   **Python**
- Using boosted decision trees in ROOT TMVA to isolate decay of squarks from background top-top interactions
- Extending 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**
- Modeled common practice music theory with respect to key structures
- Determined key of input scores given only melodic line; also 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: Modeling disease spread 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
Sangleet: wrote/choreographed/directed a 15-minute musical	bit.ly/sangleet		2011