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Onkur Sen

onkursen.com
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Education

Stanford University
September 2014 — June 2016 (expected)
M.S. Computer Science
Depth 1: Artificial Intelligence (AI)
Depth 2: Human-Computer Interaction (HCI)

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

Software Engineering Experience

Accompany June 2015 — September 2015
Software Engineer Intern **Ruby/Rails, C++, SQL**

- Built an end-to-end pipeline from scratch for automatically crawling, extracting, vetting, and ranking news feeds
- Implemented algorithm to cluster news articles based on similarity and relevance in article titles and contents

Palantir May 2013 — September 2014
Forward Deployed Engineer (Philanthropy Team) **Java, Groovy, SQL, Python**

- 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)

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

- 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

Carta Fall 2014 — Present
Advisors: Dr. Michael Bernstein and Dr. Ramesh Johari, Stanford University **Python, Ruby/Rails, SQL**

- Implementing web app that uses machine learning algorithm to provide course recommendations for students

Apparition: Crowdsourced User Interfaces That Come To Life As You Sketch Them Winter 2014 — Fall 2014
Advisor: Dr. Michael Bernstein, Stanford University **JavaScript (Meteor)**

- Developed web application that utilizes crowdsourcing around a Method Draw canvas to quickly prototype interfaces

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

- Used boosted decision trees to isolate decay of stop quarks from background top-top interactions
- **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* 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.

Projects

onkursen.com: Personal website	**Node.js**	2012-present
All About Inverses: A concise primer on linear algebra	**HTML**	2014
Contagion: Modeling disease spread across social networks (Palantir Hack Week)	**Python, D3**	2013
CT: Using machine learning and the Global Terrorism Database to predict terrorist attacks	**Python**	2013