

Sunipa Dev

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OBJECTIVE

Pursue a research internship to hone research skills and gain valuable industry exposure to pave the way for securing the position of a research scientist in a reputed industrial research lab after graduation.

EDUCATION

- **University of Utah** Salt Lake City, UT
PhD Computer Science; GPA: 3.79 Aug 2016 – Ongoing
 - **Coursework:** Data Mining, Machine Learning, Advanced Algorithms, Data Visualization, NLP
- **IISER** Kolkata, India
Integrated Bachelors and Masters in Mathematics and Statistics; GPA: 8.4/10 Jul 2011 – Jun 2016
 - **Coursework:** Differential Geometry, Topology, Statistical Inference, Probability, Stochastic Processes

RECENT RESEARCH PROJECTS

- **Absolute Orientation for Word Embedding Alignment** University of Utah
Advisor: Dr. Jeff M. Phillips
 - Formulated linear transformation between two high dimensional embeddings based on single iteration rotation, translation and scaling to align embeddings generated from different mechanisms (GloVe, Word2Vec etc)
 - Successfully used the transformation for boosting word embedding performance using preliminary ensembles and for multilingual translations. **Preprint at :** arXiv:1806.01330
- **Attenuating Bias in Word Vectors** University of Utah
Advisor: Dr. Jeff M. Phillips
 - Devised and compared different ways to detect and remove bias from word embeddings
 - Defined simple, uniform qualitative tests to measure bias and quality of the embedding

OTHER RESEARCH PROJECTS AND INTERNSHIPS

- **Brain Data Analysis for Visual Perception of Different Stimuli** IISER Kolkata
Advisor: Dr. Anirban Banerjee Aug 2015 – May 2016
 - Cleaned and visualized images using SPM and built models for regressing over activity levels in a sample cube or voxel of neurons during tasks
 - Built a classifier for what taste sensation is experienced in correspondence with the visual stimuli being seen.
 - Found discernible difference in active brain regions in response to different visual stimuli in terms of different basic shapes being seen
- **OIST - Advisor: Dr. Robert Sinclair** Okinawa, Japan
Simulation of Stimuli Processing in the Human Visual Cortex May 2015 - Aug 2015
 - Generated stimulus data using a Gaussian distribution and simulated flow of stimuli in the visual and auditory cortex
 - Successfully produced accurate simulations of the two basic senses and established a weak link between the two

SKILLS

- **Languages with High Proficiency:** Python, MATLAB, R
- **Languages with Medium Proficiency:** C, JavaScript, HTML, Perl, MySQL

EXTRA-CURRICULAR ACTIVITIES

- Teaching Mentee for Data Mining (Spring 2018) and Foundations of Data Analysis (Fall 2017)
- Secretary of Literary Club, IISER Kolkata and chief editor of Muse, the annual magazine
- Secured the DST Inspire awarded to the top 1% students in science in India