

EXPERIENCE

GOLDMAN SACHS (RISK) | CREDIT RISK MODELING

Summer 2017

- Modeled Credit Default Swaps during Crises periods
- Extrapolated the findings to Emerging Markets
- Handled 3 critical fixes in models in production
- Offered a full time position at Bengaluru

RESEARCH INTERN | PROF. V GOGATE

Summer 2016 | University of Texas at Dallas

- Analyzed a regularization technique that sets constraints on model parameters
- Achieved 2-3% higher accuracy than L2 regularization on Iris, Email classification, etc. datasets

RESEARCH

ANALYSIS OF SPEECH RECOGNITION API'S | PROF. ANI NENKOVA

June 2017 - Present | University of Pennsylvania

- Analyzed performance across emotions, gender, race, ethnicity and age groups on the CREMA-D corpus

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MODELING BEHAVIOR IN THE PUBLIC GOODS GAME |

PROF. NISHEETH SRIVASTAVA

June 2017 - Present | IIT Kanpur

- Modeling behavior in a public goods game
- Analyzing individual behavior in a social setting

PROBABILISTIC MODELS FOR WORD (SENSE)

REPRESENTATION | PROF. PIYUSH RAI AND PROF. PURUSHOTTAM KAR

October 2017 - May 2018 | IIT Kanpur

- Proposed a generative model for word sense vectors
- Senses modeled as Gaussian Mixtures over fundamental 'concepts', Words are mixtures over their senses
- Complete inference modeled using Gibbs sampling

HIERARCHICAL WORD SENSE DISAMBIGUATION | PROF. HARISH KARNICK

Jan - Nov 2017 | IIT Kanpur

- Developed a hierarchical model for sense disambiguation based on WordNet sense keys
- Every node has an LSTM encoder-decoder with a shared encoder across words with a word dependent context independent attention mechanism

POSITIONS

2015-16 Vice President BloodConnect - Kanpur City
2015-16 Secretary Fine Arts Club, IIT Kanpur

EDUCATION

UNIVERSITY OF PENNSYLVANIA

MS IN COMPUTER AND INFORMATION SCIENCE

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

B.TECH IN COMPUTER SCIENCE, 9.25 / 10.0

TEACHING EXPERIENCE

UNIVERSITY OF PENNSYLVANIA

Fall 2018 **Teaching Assistant**, Linear Algebra and Optimization

IIT KANPUR

Spring 2018 **Teaching Assistant**, Data Structures and algorithms

Fall 2017 **Student Instructor**, Introduction to Computing

Fall 2017 **Course Mentor**, Introduction to Machine Learning

COURSES

WHARTON

Fixed Income Securities[#]

[#]: Ongoing

ARTIFICIAL INTELLIGENCE

Introduction to ML • Natural Language Processing

• Probabilistic Machine Learning • Learning Theory • Algorithmic Game Theory •

Computational Cognitive Science • Advanced Machine Learning[#]

[#]: Ongoing

COMPUTER SCIENCE AND MATHEMATICS

Data Structures • Algorithms • Computer Organization • Operating Systems • Compiler Design • Database Management Systems • Linear Programming and Spectral Graph Theory • Numerical Methods • Probability and Statistics

PHILOSOPHY

Introduction to Philosophy • Philosophical Logic • Moral Thinking • Philosophy of Science

AWARDS

2017 Academic Excellence Award by IIT Kanpur

2016 Academic Excellence Award by IIT Kanpur

INTERESTS

Machine Learning • Natural Language Processing

• Computational Finance • Risk Management •

Data Analytics

SKILLS

Python • R • PyTorch • Matlab • C++ • Tensorflow
• \LaTeX • SQL • Assembly