

EDUCATION

STANFORD UNIVERSITY

M.S. IN COMPUTER SCIENCE
2015-2017 | Stanford, CA
Depth in Artificial Intelligence

IIT BOMBAY

B.TECH (HONORS) IN
COMPUTER SCIENCE AND
ENGINEERING
2011-2015 | Mumbai, India
Minor in Applied Statistics and
Informatics

LINKS

Personal://stanford.edu/~rgupta93
Github://raghavgupta93
LinkedIn://raghav-gupta
Quora://Raghav-Gupta-1

COURSEWORK

- Deep Learning for NLP
- Machine Learning
- Natural Language Processing
- Information Retrieval
- Reinforcement Learning
- Probabilistic Graphical Models
- Social Network Analysis
- CNNs for Visual Recognition
- Machine Translation
- Convex Optimization

SKILLS

PROGRAMMING

Programming and Scripting:
Python • Java • C++
C • Bash • Matlab

Deep Learning Frameworks:
TensorFlow • Theano • Torch

Databases:

Postgres • MySQL • MongoDB

Others:

LaTeX • VHDL • Assembly

INTERESTS

Languages:

Hindi/Urdu • Spanish • Russian •
Swahili • Punjabi

Music:

Piano • Vocals

EXPERIENCE

GOOGLE | SOFTWARE ENGINEER: RESEARCH AND MACHINE INTELLIGENCE |

August '17 - Present | Mountain View, CA

- Research and development role in deep learning-based task-oriented dialog systems as part of a team within the Research and Machine Intelligence division.

STANFORD | RESEARCH ASSISTANT: NLP | September '15 - May '16 | Stanford, CA

- Worked with Prof. Chris Manning on parser-interpreter neural networks for semantic objectives, and on Stanford's Knowledge Base Population task submission.

RECRUITER.AI | DATA SCIENCE INTERN: NLP, IR | Summer '16 | Palo Alto, CA

- Implemented unsupervised extraction of candidate skills from online presence (GitHub, LinkedIn) and improved relevance ranking for candidate search.

BAR-ILAN | RESEARCH INTERN: NLP, CROWDSOURCING | Summer '15 | Israel

- Worked with Prof. Ido Dagan at the intersection of linguistics, crowdsourcing and ML on a framework to obtain high-quality crowd annotations for English light verbs.

SAMSUNG ELECTRONICS | SWE INTERN: MULTIMEDIA | Summer '14 | Korea

- Prototyped new framework for Dynamic Adaptive Streaming over HTTP w/server & network involvement for global server optimization; included in industry standard.

IST AUSTRIA | RESEARCH INTERN: GAME THEORY | Summer '13 | Austria

- Developed state-of-the-art solver for quantitative and qualitative POMDP objectives, and extended theory of biological all-pay auctions to multiple rewards.

KEY PROJECTS

Sarcasm & Sentiment with NNs

Explored sentiment classification & sarcasm detection in Twitter data using feed-forward NNs

Role of Language in Success on Kickstarter

Predicted success/failure of projects using only project pitch; 0.8 F1 using linguistic features (best-known)

Power Relation Detection in Emails

Detect relation (senior/junior/colleague) b/w email sender, receiver; used ngrams, other cues

Predicting International Communities

Modeled trade-diplomacy communities between nations, evaluated model using network-theoretic approaches

Multi-Instance Yelp Image Classification

Built Convolutional Neural Nets (CNNs) to assign multiple attributes to multiple images of restaurants

Virtual Memory Implementation

In experimental OS over Linux; implemented multi level page table and page replacement strategies

PUBLICATIONS

A Fast Unified Model for Parsing and Sentence Understanding.

54th Annual Meeting of the Association for Computational Linguistics (ACL 2016).

Optimal Cost Almost-sure Reachability in POMDPs.

29th National Conference on Artificial Intelligence (AAAI 2015).

Qualitative Analysis of POMDPs with Temporal Logic Specifications for Robotics Applications.

IEEE Conference on Robotics and Automation (ICRA 2015).

Biological Auctions with Multiple Rewards.

Proceedings of the Royal Society of London B: Biological Sciences (August 7, 2015)

TEACHING AND MISCELLANEOUS

- 2016-2017 TA for Spoken Language Processing, From Languages to Information, Automata Theory
- 2011 All India Rank 74 in the IIT-Joint Entrance Examination
- 2011 Top 1% in the Indian National Physics and Chemistry Olympiads