Kritika Prakash

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Github, LinkedIn, Website

Education

International Institute of Information Technology, Hyderabad **2016–Present**
B.Tech (Honors) and MS by Research in Computer Science & Engineering *CGPA: 8.92/10*
Dean's Distinction List Awardee (five times) for Academic Excellence: Top **5%** of the batch

Advisors: Prof. Praveen Paruchuri and Prof. Sujit Gujar, Machine Learning Lab, IIIT Hyderabad

Work Experience

Mentor, OpenMined **Nov'19 - Present**
Mentoring beginners to contribute to the open-source org OpenMined to privatize AI.

Research Intern, TCS Research & Innovation Labs, Hyderabad **May - July' 19**
Built algorithms for Power Trading in Smart Grids

ML Intern, Microsoft, Bangalore **May - July'16**
Created a Probabilistic Resume Classification and Visualization Model for Candidate Selection

Teaching Assistant, IIIT Hyderabad **Aug'17 – Present**
Created assignments, conducted tutorials and tournaments, evaluated tests and projects
Courses: Machine Learning, Artificial Intelligence, Database Systems, Optimization Methods

Publications

VidyutVanika: An Autonomous Broker Agent for Smart Grid Environment **PASS 2019**
*S. Ghosh, **K. Prakash**, S. Chandlekar, E. Subramanian, S. Bhat, P. Paruchuri, S. Gujar*
Built algorithms for Power Trading in Smart Grids in a simulated environment, given consumer and wholesale markets, customers and power generating companies

Prediction Based Strategies for Negotiations with Dynamically Changing RV **GDN 2019**
*A. Srinivas, **K. Prakash**, N. Singh, P. Paruchuri (pre-print)*
Created the LSTM based Reservation Value prediction approach, as well as methods and metrics of evaluation

Research Projects

Privacy Preserving Machine Learning
Guide: Prof. Sujit Gujar, Prof. Naresh Manwani *Ongoing*
Creating mechanisms to tackle the problem of lack of privacy of data sources in Machine Learning algorithms

Multi-Agent Reinforcement Learning
Guide: Prof. Praveen Paruchuri *2017-18*
Using Reinforcement Learning, worked on various algorithms to increase co-operation in multi-agent scenarios

Achievements & Honors

Ranked **Third** in Flipkart Machine Learning Challenge out of **19,000** participants from top Indian universities

Awarded **Dean's Distinction Award** (five times) for Academic Excellence: Top **5%** of the batch

Awarded **National Talent Search Scholarship**: National Rank **23** out of **1,000,000** competitors

Times of India Newspaper Interview on achieving NTS Scholarship

Awarded with the title of **Empowering Women** by IIIT Hyderabad,2019

Titled **CBSE Merit Scholar** for AISSE secondary school exam for achieving **10** CGPA
Titled **Best Sportsperson, Table Tennis** Women - IIIT Hyderabad, 2018

Major Projects

Automated Ad Exchange Trading Bot   **Game Theory**
*Developed an Ad Exchange trading agent: **Third Place in Tournament** using Java*   *2019*

Multi-Agent Reinforcement Learning POMDP Solver   **Multi-Agent Systems**
Created a POMDP solver using RL to increase co-operation among agents using Python   *2017*

E-mail Author Identification   **Machine Learning**
Developed a Hierarchical-LSTM based classifier to identify the author of an email using Python   *2017*

Image2Latex   **Digital Image Processing**
Developed a tool for Latex Generation from Images of Math Equations using MATLAB   *2018*

Decentralized Food-Delivery App   **Blockchains**
Created a Smart Contract based Ethereum Dapp for a Decentralized Food-Delivery System   *2018*

Multi-Agent Automated Negotiation Bot   **Multi-Agent Systems**
*Created a Multi-Agent Automated Negotiation Bot: **First Place in Tournament** in Java*   *2017*

Skills

ML Tools: PyTorch, Keras, Tensorflow, Azure ML, AWS
Software: HTML, CSS, TeX, AutoCAD, Catia
Languages: Java, Python, C++, Matlab, R, Solidity
Frameworks: Maven, Truffle, MySQL, OpenGL, Genius

Research Interests

ML and AI: Reinforcement Learning, Differential Privacy, Game Theory, Automated Negotiation
Decentralized Systems: Blockchains, Multi-Agent Systems, Cryptography, Graph Theory

Positions of Responsibility

Present: Head, Lean In, IIIT Hyderabad Chapter
Present: Member, Student Academic and Counselling Board (SACB), IIIT Hyderabad
Present: Member, Mozilla Community, IIIT Hyderabad
Summer'17: Organized Summer School on Privacy & Security, IIIT-Delhi with **Prof. Ponnurangam K**

Relevant Coursework

Algorithms & Data Structures	Machine Learning
Artificial Intelligence	Differential Privacy
Distributed Systems	Reinforcement Learning
Abstract Algebra & Discrete Mathematics	Blockchains
Compilers & Theory of Computation	Game Theory
Computer Graphics	Digital Image Processing
Database Systems	Graph Theory
Software Architecture	Multi Agent Systems
Computer Networks & Operating Systems	Designing Intelligent Systems
Information Security	Optimization Methods