

Mudit Verma

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ABOUT ME

I like to talk about AI entering the land of humans and providing explanations to their decisions.

EDUCATION

ARIZONA STATE UNIVERSITY

PH.D. COMPUTER SCIENCE
2nd Year | Tempe, AZ, USA
GPA: 4/4

DELHI TECHNOLOGICAL UNIVERSITY

BTECH INFORMATION TECHNOLOGY
2019 | New Delhi, India
CGPA: 9.51/10 | Department Rank 1

SKILLS

Fields

RL > NLP >= CV

Frameworks

- Pytorch • OpenAI-Gym
- Keras • Tensorflow
- OpenCV • NLTK • Scikit-Learn • Pandas

Languages

• C++ • Python

Misc

- D3 Library • Android Development
- Flask • Web Scraping • Photoshop

AWARDS

2019

- CIDSE Doctoral Fellowship

2018

- 4th, Hack In The North (IIIT Allahabad)
- Selected for Education Innovation Mentorship Programme, ReadAlliance
- Department Topper for 6 consecutive semesters

2017

- 1st, READing Hackathon (USAID)
 - Pramod Jain Scholarship, best student at DTU
 - Top 15, World Food India Hackathon
 - Exemplary Contribution, CSI-DTU
 - Interest Development Group Head, CSI-DTU Chapter
 - DTU Merit Department Rank Scholarship BTech 2st year.
- 2016
- 46th at HackerEarth ML Challenge-1
 - Top 10 Synergy DTU-Hack, DTU

EXPERIENCE

YOCHAN LAB GRADUATE RESEARCH ASSISTANT

Aug 2019 – Present | Arizona State University, USA

- Fall 2019 - Teaching Assistant for CSE 471, Intro to AI by Dr. Kambhampati.

Ph.D. student advised by Dr. Subbarao Kambhampati. Working on areas of Explainable Sequential Decision Making systems and Human in the loop Reinforcement Learning.

SAMSUNG SEMICONDUCTOR INDIA R&D | MACHINE LEARNING

May 2018 – July 2018 | Bangalore, KA

- Created DRAM Bank Simulator, (400 times faster) with enhanced Fault Classes.
- Novel Approach to Redundancy Analysis Algorithms through State Space Reduction schemes & Beating RA through Monte Carlo Tree Search and Residual Networks. Awarded Best Intern Project at SSIR.

SAMSUNG SEMICONDUCTOR INDIA R&D | MACHINE LEARNING

June 2017 – July 2017 | Bangalore, KA

- Diagnosed issues with SSDs & Implemented SSD Simulator for Read/Write/Garbage Collection.
- Created an LSTM based Algorithm - Stream Selection for Smart Data Categorization (STRASDAC) to reduce write-wearing in SSDs and in turn further improve Garbage Collection. Reached Best Intern Project Finals at SSIR.

PUBLICATIONS & PROJECTS

- Verma, M., & Buduru, A. B. (2020). Fine-grained Language Identification with Multilingual CapsNet Model. In 2020 IEEE Sixth International Conference on Multimedia Big Data (BigMM) IEEE.
- Guan, L., Verma, M., & Kambhampati, S. (2020). Explanation Augmented Feedback in Human-in-the-Loop Reinforcement Learning. In 2020 ICML Workshop on Human in the Loop Learning (HILL 2020)
- Sreedharan, S., Soni, U., Verma, M., Srivastava, S., & Kambhampati, S. (2020). Bridging the Gap: Providing Post-Hoc Symbolic Explanations for Sequential Decision-Making Problems with Black Box Simulators. In 2020 ICML Workshop on Human in the Loop Learning (HILL 2020)
- Verma, M., Sinha, P., Goyal, K., Verma, A., & Susan, S. (2019, June). A Novel Framework for Neural Architecture Search in the Hill Climbing Domain. In 2019 IEEE Second International Conference on Artificial Intelligence and Knowledge Engineering (AIKE) (pp. 1-8). IEEE.
- Verma, M., Bhambri, S., & Buduru, A. B. (2019). Making Smart Homes Smarter: Optimizing Energy Consumption with Human in the Loop. arXiv preprint arXiv:1912.03298.

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- **Term Paper** Randomly Wired Networks are on the rise, have we been creating wrong Networks all along?
 - **Term Paper** Diverging Emerging Field of Multi-Task Reinforcement Learning
 - **Colors of Desert** Used D3 to highlight deserts are indeed colorful.
 - **TAC** App that adapts and teaches children/adults (specially dyslexic) to read/write/recognize using ML Techniques.
 - **CookHub** Open Source Community for Recipes where one can chat, push, pull, fork, collaborate & view trending recipes and contributors.
 - **Shut The Fake Up** App/Website Wisdom of Majority & AI for Fake News detection.
 - **Text Summarization** Human like summarization using Pointer Generator Networks
 - **StressOut** App to check one's stress levels and suggest better work timings to bring relief through Machine Learning.