Mayank Sharan

MS CSE, UCSD

Phone: (858)-319-5144 / Email: msharan@ucsd.edu
www.linkedin.com/in/mayank-sharan / Google Scholar

EDUCATION

- **University of California, San Diego** — San Diego, USA
  M.S. in CS&E; GPA: 4.0/4.0 — *Sept 2021 – Mar 2023 (expected)*
- **Indian Institute of Technology, Delhi** — Delhi, India
  B. Tech. in CS&E (Specialization in Data Analytics & AI); GPA: 9.043/10 — *July 2014 – May 2018*

Relevant Courses: Program Synthesis, Unsup. Learning, Deep RL, NLP, AI, DL, ML

WORK EXPERIENCE

- **Applied Science Intern** — Bellevue, USA
  Microsoft Turing — *Jun 2022 - Present*
    - Working with world's largest language model [Megatron-Turing NLG]
    - Enabling smart dialog systems to handle long term multi-session context

- **Graduate Student Researcher** — UC San Diego, USA
  Spatio-temporal Machine Learning Lab (Prof. Rose Yu) — *Nov 2021 - Present*
    - Developed methods to mitigate long tail error in deep probabilistic forecasting models. [Paper]
    - Investigating reinforcement learning settings for long tail scenarios.

- **Senior Data Scientist** — Bangalore, India
  Bidgely Technologies (Series C Energy AI company) — *Jul 2018 - Sep 2021*
    - Tech Lead: Hybrid Recommender System, PySpark migration, MATLAB to python migration
    - Lead product design and tech development of Hybrid recommender system
        * Serving hyper-personalized recommendations to 3M+ homes based on 18T+ data points
        * Presented the engine in client meetings leading to more than $1M in contracted ARR
    - Developed state of the art short term load forecasting framework
        * Achieved a MAPE of 0.392% for 1-day ahead forecast beating the previous SoTA at 0.609%.
        * Won Bidgely Hackathon 2019 with proof of concept developed in 24 hours

PROJECTS

- **Constrained Multi Agent Traffic Signal Control** — University of California, San Diego
  Prof. Rose Yu, Course Project — *Oct 2021 - Dec 2021*
    - Developed theory for constraint inclusion in multi agent RL settings
    - Evaluated multiple approaches with multi agent traffic signal control as a task

- **Tak playing Bot** — Indian Institute of Technology, Delhi
  Prof. Mausam, Course Project — *Oct 2016 - Dec 2016*
    - Developed bot to play Tak for nxn board size using minimax tree, α-β pruning and customizations
    - Defeated the world's best bot for the game at the time

OTHER PROJECTS

- **Summarizing News Articles using Pointer-Generator Networks**: Modified the current SoTA to improve abstract summaries by a ROUGE score of 0.62 *[Report]*
- **Visual Question Answering**: Created a CNN-LSTM based VQA network with 64.72% accuracy in 2017 MS-COCO VQA challenge

Technical Skills

- **Languages**: C/C++, Java, Python, Go, SML, MATLAB, HTML, CSS, PHP, SQL, NoSQL, javascript
- **Frameworks and Cloud**: Spark, PySpark, Hadoop, AWS, Azure, IBM Cloud
- **Libraries and IDEs**: Tensorflow, PyTorch, PyCharm, Android Studio, NS3, Mininet

Honors & Achievements

- **Spot Award**: Received the award twice in 1 year of the program at Bidgely for outstanding performance
- **IIT JEE, 2014**: All India Rank 68 among 1.4 million applicants
- **Semester Merit Award**: Received the award for being in top 7% of class for 2 semesters at IIT Delhi
- **KVPY, 2012**: Fellow in the young scientist program conducted by IISc, Bangalore
- **IChO, 2014**: Invited for Orientation cum Selection Camp for being in the top 35 in the nation