

Aditya Jain

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EDUCATION

- **University of Southern California, Los Angeles, CA** Jan 2021 - Present
Master of Science (Computer Science) **GPA: 4.0/4.0**
Coursework : Analysis of Algorithms, Foundations of Artificial Intelligence, Data Mining
- **University of Pune, India** Aug 2014 - Jun 2018
Bachelor of Engineering (Computer Engineering) **Aggregate: 74% (3.6/4.0)**
Coursework : Data Structures, Operating Systems, Data Warehousing, Cloud Computing, Software Engineering

TECHNICAL SKILLS

- **Languages:** Python, Java, Javascript, SQL, HTML
- **Databases:** MySql, MongoDB, Redis
- **Machine Learning:** scikit-learn, Tensorflow, Keras, Pytorch, tensorflow-serving
- **Tools and Frameworks:** pandas, numpy, pySpark, Git, Docker, gRPC

EXPERIENCE

- **USC Institute of Creative Technologies** Feb 2021 - Present
Student Worker (RA - Machine Learning) | Part-Time | Python, sklearn, numpy, Git
 - Researched on techniques to improve performance of OpenTutor answer classifier and resolve cold-start problem.
 - Implemented a hierarchical clustering algorithm to find clusters of similar answers in lesson dataset and their clusteroids were taken as candidate answers. Later similarity with those candidate answers are used as features.
- **Cognizant Technology Solutions** Sep 2018 - Jan 2021
Associate Projects (Data Science) | Full Time
 - **Search-ad click prediction | Python, keras, pandas, tf-serving, gRPC, sklearn**
 - * Researched on various NLP techniques to improve ad click through rate of existing system by 10%.
 - * Worked on knowledge distillation to train CLSM (Convolutional Latent Semantic Model) using BERT Base.
 - * Deployed CLSM model using tf-serving over gRPC for improving query response time to 5 ms.
 - **Medicare Star Analytics (Healthcare) | Python, sklearn, pandas, numpy, matplotlib, seaborn**
 - * Developed analytical and ML models to assist customers' marketing team in identifying right and influential population for various outreach programs to improve overall STAR rating of the Medicare plans.
 - * Built ML models to get probability of patient's health decline (bladder issues, mental/physical health decline, etc) leveraging his/her medical records. Achieved .75 AUC score using gradient boosting on decision trees.

PROJECTS - <https://projects.adityajain.me>

- **AI Checkers Agent :** Implemented checkers AI Agent using mini-max algorithm with alpha-beta pruning to compete against other players' agent in a checkers competition. [Link](#)
- **Kinship detection using faces :** Used VGG-Facenet to generate face embedding and trained a siamese network architecture to get kinship probability. Achieved 79.2 AUC in Kaggle test dataset. [Link](#)
- **NER/POS Tagging Web App :** Trained an LSTM based seq2seq model to tag all words of paragraph to their Named Entity or Part of Speech. Deployed model using Flask and docker. [Link](#)
- **Flappy Bird RL Agent :** Trained a Reinforcement Learning agent using Deep Q-Learning on a Double Dueling Network Architecture with Prioritized Experience Replay to play Flappy Bird Game. [Link](#)

LEADERSHIP AND ACHIEVEMENTS

- Ranked 6th among 250 students in checkers AI agent competition for "Foundations of AI" course at USC. **Mar 2021**
- Runner-Up in Smart India Hackathon '17 among 300 teams nationwide. **Apr 2017**
- Among top 8 finalist from 100 participants in Infosys Techzooka '16. **Oct 2016**
- Organizer and Lecturer in a national level event called "Linuxication" at MIT, Pune. **Mar 2016/2017/2018**