

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, Git, pytest
 - Researched techniques to improve performance of OpenTutor answer grader and resolve the cold-start problem.
 - Implemented clustering algorithm to group similar answers in the lesson data-set. Used similarity with cluster centers (clusteroids) as features in the machine learning model to grade answers.
 - Performed unit testing to compare the performance of models after different tweaks or improvements.
- **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 an 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 the right and influential population for various outreach programs to improve the 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**