Aditya Chandupatla

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EDUCATION

- **University of Southern California** — Los Angeles, CA
  M.S. in Computer Science. Focus: Data Science — *August 2019 – April 2021*
  Relevant Coursework: CSCI 567 Machine Learning, CSCI 570 Analysis of Algorithms
- **Jawaharlal Nehru Technological University Hyderabad** — Telangana, India
  B.Tech in Computer Science and Engineering - 88.09% Gold Medalist — *September 2013 – June 2017*
  Leadership: Imparted knowledge to juniors by conducting sessions on programming

EXPERIENCE

- **USC Center for AI in Society | *Student Worker***, *Los Angeles, California* — September 2019 – Present
  Preference Elicitation – Working with Dr. Phebe Vayanos, and a team of PhD students, to solve homelessness in Los Angeles by applying Machine Learning. Currently implementing a Django app with Gurobi Optimizer.
- **Teradata | *Software Engineer***, *Hyderabad, Telangana* — July 2017 – December 2018
  Analytics – Utilized micro-services architecture for automating data migration between two databases. Involved in extraction and development of feature set for time estimation task. Employed regression techniques to construct model and achieved an accuracy of 89%. Collaborated with a team of 15 engineers to create infrastructure for error detection module, to analyse logs from several services and push error messages to state-machines for performing analytics and root-cause analysis.
  Tensorflow – Integrated Google's distributed 'Tensorflow,' into Teradata by incorporating table-operators to provide end user with capabilities to run analytical queries right within database.
  GPU – Implemented a prototype to accelerate database aggregation operations using GPU (NVIDIA GeForce GTX 1070). Achieved a performance boost of up to 3X on a dataset containing 32 million records.
- **VMware | *Intern - IT***, *Bengaluru, Karnataka* — January 2017 – July 2017
  Full-stack Web Development – Took initiative to engineer utility dashboard to provide unified view of plethora of micro-services. Using it, one can perform REST calls, interact with SOAP web-services, compare configuration files, build versions and track health of services. Led to faster deployment times, increased productivity and better communication between two teams.
- **Hedgehog Lab | *Android Developer Intern***, *Hyderabad, Telangana* — May 2016 – July 2016
  Be Hungry App – Revamped and managed an instant-food-delivery mobile (Android) application. Proposed custom combo feature and re-designed checkout screen functionality from scratch.

TECHNICAL SKILLS

- **Languages**: Python, C/C++, Java, CUDA, SQL, JavaScript, HTML, CSS, PHP
- **Analytics**: Tensorflow, Numpy, Keras, Scikit-learn, Computer Vision (CNN's), Natural Language Processing (RNN's)
- **Frameworks/Tools**: Docker, Git, Java Spring, Python Django, Apache Kafka, ELK stack, Android, Linux/Unix

HONORS AND AWARDS

- **Night On The Town (NOTT) Award**: Won performance bonus award for contributing to Teradata from C. Jaiprakash, Engineering Manager and Raj Cherabuddi, VP & GM of Teradata India.
- **Best outgoing student of B.Tech CSE**: Awarded best outgoing student gold medal, and Dr. D Seetha Mahalaxmi Endowment Medal for stellar academic performance by University Vice chancellor and the director of IIT Delhi.
- **Programming Competitions**: Ranked 992 in ACM International Collegiate Programming Contest (ICPC.) Stood 1st in multiple programming contests conducted by Computer science department of Osmania University.

PROJECTS

- **Neural Style Transfer**: Generating creative artistic images by applying transfer learning on a pre-built VGG-19 network (approximately 0.5 GB parameters). Referenced paper published by Gatys et al
- **De-biasing Word Vectors**: Explored GloVe word embeddings (50 dimensional) for gender bias. Executed a de-biasing operation to eliminate bias. Vocabulary size: 400,000 words
- **Dimensionality Reduction**: Applied PCA to perform dimensionality reduction and reduced dataset size by 10 times. Dataset experimented on: Human faces, and Cats & Dogs
- **Artificial Music Generation**: Trained a deep-learning model to generate novel jazz music (RNN with LSTM units)