Anand Jain

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EDUCATION	**University of Chicago** *B.S.*, Computer Science.	**Expected Jun, 2021**
	Santa Clara High School	**2017**

COURSES
- Algorithms - Discrete Math - Abstract Linear Algebra - Mathematical Logic - Inventing Interactive Devices - Electronics - Computer Systems

SKILLS
Languages: Python, Julia, Go, Bash, C
Packages: PyTorch, Gym, TensorFlow, Scikit-Learn, Pandas, Flask
Spoken: Fluent English. Classroom Hindi and Spanish

EXPERIENCE

Fermilab - LSST Machine Learning Intern   **Jun 24 - Aug 31 2019**
- Researched the applications of neural differential equations to astronomy for the Large Synoptic Survey Telescope
- Used the PLAsTiCC Astronomical Kaggle dataset to train a neural network to approximate the differential equation of different astronomical objects' light curves (brightness over time)
- Presented a poster of my work on Neural-ODEs at the 2019 LSST Conference in Arizona
- Worked with peers and mentors to create a high level API for fast prototyping and ensemble training of neural networks for astronomy datasets, primarily in PyTorch
  - **Tools:** TorchDiffEq, DifferentialEquations.jl, PyTorch, TensorFlow, Matplotlib, Astropy, Python, Julia

PROJECTS

Sips: Sports Data Tool on Google Cloud   **Oct 2018 - Now**
- Created Python package to track odds and statistics for a variety of sports
- Have collected over 1 GBs of data using Linux virtual machines on Google Cloud
- Trained TensorFlow win/loss classification and LSTM odds prediction neural network models on Sips data
- Wrote Flask app to visualize odds using Matplotlib
  - **Tools:** Python, Requests, Beautiful Soup, TensorFlow, Flask, Matplotlib
  - **Link :** github.com/anandijain/sips

Gym-Sips: Reinforcement Learning Environment   **Feb 2019 - Now**
- Custom reinforcement learning environments using the OpenAI Gym package for the output data of sips
- Agent takes actions to buy the home team or the away team moneyline, and receives reward at the end of the game
- Agent learns hedging strategies to mitigate risk
  - **Tools:** Python, Gym, TensorFlow, TF-Agents
  - **Link :** github.com/anandijain/gym-sips

ACTIVITIES

UCQuantum (.org) - Founder/President   **Aug 2019 - Now**
- Unofficial club applying to become an official RSO for UChicago undergrads interested in quantum computing
- We have 50 facebook group members and 10 active members
- We are planning to host talks, hackathons, and lab tours with faculty on campus