JAYANSH BHARTIYA

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EDUCATION

Cornell University, Ithaca, NY — Graduation: May 2022
B.A. in Computer Science & B.A in Economics — CS GPA: **3.47** | Economics GPA : **3.67** | **Dean's List** - FA'18, SP'20
Relevant Coursework: Machine Learning • Computer Vision • Systems & Functional Programming • OO Programming & Data Structures Backend Development • Discrete Mathematics • Probability & Statistics • Econometrics • Intermediate Macroeconomics • Linear Algebra

WORK EXPERIENCE

Tale.ly — **Ithaca, NY**
Software Developer, Lead of Market Research — May 2020 - Aug 2020
- Supervised and structured development process for a team of 40 working remotely and finished all stages of development on time.
- Programming iOS app and web app using React Native and React.js , respectively, for audio-based social networking.
- Led market research in a team of 6. Performed data analysis on firm-competitiveness metric using Python.
- Analyzed results from the data analysis to focus on sections of the app which were more similar to other competing firms.

Cornell University — **Ithaca, NY**
Teaching Assistant, AEM 2840 : Python Programming for Data Analysis and Business Modeling — September 2020 - Present
- Leading discussions, holding grading sessions, office hours for student help & creating assignments for a class of 44 working remotely.

Mentor, Teaching Consultant, Head for virtual consulting hours, CS 1110 : Computing using Python — August 2019 - May 2020
- Led 8 mentees & consulting hours, worked closely with 5 teaching faculty, conducted weekly labs & grading sessions for student help.
- Lectured & helped a class of 60 students, coordinated virtual consulting hours across various timezones during coronavirus pandemic.

GirnarSoft — **New Delhi, Delhi**
Summer Internship in Machine Learning and Computer Vision — May 2019 - July 2019
- Trained Convolutional Neural Network on 15,000 used car images using Keras with an accuracy of 86%.
- Enhanced UX by replacing manual entering of number plate digits with plate digits extracted from image on seller portal using OCR.
- Modeled CNN to classify car by brand and filtered out irrelevant pictures thereby inducing automation on seller portal.

Cornell University Sustainable Design (CUSD) — **Ithaca, NY**
Member, 'Currents' – Machine Learning Sub-team | Member, 'Tiny Home' – Web Development Sub-team — February 2019 - Present
- Modeled Recurrent Neural Network on proximity sensor and geolocation data using Python and Google Maps' geocoding API.
- Predicted professor's presence in his cabin given 55 day historical routine using TensorFlow in order to adjust heating and save energy.
- Designed a web application and quiz for Tiny Home exhibit using HTML, CSS, and PHP.

INDEPENDENT SOFTWARE PROJECTS

AI Algorithmic Trading Bot (Deep Learning and Data Analysis) — June 2020
- Implemented trading strategies such as MACD, Dual Moving Crossover, and RSI using *NumPy, Pandas* and *Plotly* in *Python* to analyze respective strengths.
- Received an average of 4% return on investment after backtesting the strategies individually on the *AAPL* stock.
- Deployed Long Short Term Recurrent Neural Network using *Keras* to forecast stock price given 60 day window with 3.59 RSME loss.
- Using *Reinforcement learning* using *Deep Q-Learning* in order to automate trading process to maximize profits.

'DataCaml' (Functional Programming) — May 2020
- Designed open source data science library using *OCaml* to contribute to the lack of functionality on multidimensional arrays in *OCaml*.
- Developed functionality such as manipulating CSV files, indexing & slicing data, and providing linear algebra functionalities on arrays.

Scout (Full Stack App Development) — September 2019 - Present
- Developed an iOS app using *Swift* frontend and *GoogleFirebase + Flask* backend to allow students to ping for instant academic help. Presented this app at PennApps Hackathon.
- Migrating code to *React Native* frontend and *Node.js* backend to allow cross-platform development for both iOS and Android.

SKILLS

- **Programming languages :** Python • C++ • Java • OCaml • JavaScript
- **Machine learning and Data science:** Keras • PyTorch • NumPy • Pandas • Plotly • Matplotlib
- **Web and iOS development :** React • React Native • Swift
- **Languages:** English (fluent), Hindi (fluent), Spanish (intermediate).

AWARDS, CREATIVE PURSUITS, AND RECOGNITION

Member, *Delta Tau Delta* Fraternity — August 2019 - Present

Mentor, *PREPARE* - Cornell University pre-orientation program. — August 2019

Featured in National Daily "Hindustan Times" article "*Too Cool for School"* for film-making — February 2017

Founder, *The Speaking Tree Project* - won ***Pramerica Award*** for *WWF* supported project against concretization of trees. — May 2016