Abhay Singh

contact

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education

Cornell University, Ithaca, NY — May 2021 (expected)
B.S. in Computer Science — GPA: 4.16/4.00

experience

Morgan Stanley, New York, NY
Incoming Technology Summer Analyst — June 2019 – Aug 2019

Cornell University Unmanned Air Systems, Ithaca, NY
Software Engineer, Computer Vision — October 2018 – present

- Implemented target orientation detection algorithm with OpenCV, improving accuracy by 92%
- Wrote scripts to automate workflow, automatically cropping and organizing tagged images

Damco Solutions Inc., New Delhi, India
Software Engineer Intern — June 2017 – June 2017

- Deployed Android application PhotoShelf (photoshelf.in) in development team of 4
- Implemented UI using Android Studio and XML in preparation of launch
- Sped up workflow by 1 week by designing wireframes that allowed concurrent implementation of logic and UI design
- Consulted higher management and collaborated with the CEO & Managing Director to streamline the app's UX design and flow

Data Science for India
Instructor & Curriculum Developer — July 2017 – Oct 2017

- Developed curriculum of 11 interactive-programming Jupyter notebooks, 12 statistics-based worksheets, and 1 final project, which was taught to over 400 students across India
- Instructed course in-person to 38 students, beginning with fundamentals of Python and statistics
- Extensively used numpy, pandas, and matplotlib to visualize, manipulate, and discern useful data from large data sets

projects

Space Invaders — *built using Python, Kivy*

- Fully-functioning implementation of the retro arcade game Space Invaders with Model-View-Controller (MVC) and State design patterns
- Thoroughly utilizes OOP fundamentals of data abstraction, encapsulation, and inheritance

Virtual Stock Market — *built using Flask, Python, SQLite, JavaScript, HTML, CSS*

- RESTful web app that gives users $10,000 of paper money and scrapes/parses live stock prices as JSON objects, storing them as purchases and sales of a given user in a database
- Allows users to: sign-up, login, change password, quote live stock prices, buy and sell stocks at live prices, view index of owned stocks with total live value, & view trade history

Spellchecker — *built using C*

- Checks inputted text file for misspellings against a changeable dictionary and prints out all misspelled words in a command-line interface (CLI)
- Stores every word of entire English dictionary in a self-implemented hash table, using low-level memory management with pointer references, malloc(), and free()

Reddit Playlist — *built using Java, XML, Android Studio*

- Android app that converts user-selected subreddits into objects for conversion into live YouTube playlists to watch or listen
- Retrieves video posts using a subreddit's RSS feed and YouTube's API to format into a ListView

Tweet Sentiment Analyzer — *built using Flask, Python, HTML, CSS*

- Takes an inputted Twitter username and scores user's tweets as positive, neutral, or negative

skills

Python, Java, HTML, CSS, JavaScript, C, Git, Flask, Bash/Shell, LaTeX