

Abhay Singh

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🐙 github.com/as2626

education

Cornell University, Ithaca, NY

B.S. in Computer Science, GPA: 4.16/4.00

May 2022 (expected)

coursework

* = in progress

Analysis of Algorithms*, Systems Programming*, Object-Oriented Programming & Data Structures, Discrete Structures, Linear Algebra*, Probability Models & Inference*, Multivariable Calculus

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 (photoshell.in) in development team of 4
- 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

- Scores user's tweets as positive, neutral, or negative using Twitter API and visualizes data

skills

Python, Java, HTML, CSS, JavaScript, C, Git, Flask, Bash/Shell, L^AT_EX