

# Abhay Singh

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## contact information

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## education

**Cornell University**, Ithaca, NY  
*B.S., Computer Science*

Aug 2018 – May 2022

*Relevant Coursework:* Object-Oriented Design & Data Structures – Honors, Intro to Computer Science

**Pathways School Gurgaon**, India  
*IB Diploma Programme* Valedictorian, *IGCSE* School Topper

Aug 2014 – May 2018

## professional experience

**Damco Solutions**, Faridabad, Haryana – damcogroup.com  
*Android Development Intern*

June 2017 – June 2017

Deployed mobile application PhotoShelf (photoshelf.in) in development team

- Implemented UI using Android Studio and XML in preparation of launch
- Employed object-oriented programming (OOP) fundamentals in Java
- 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** – datascienceforindia.com  
*Curriculum Developer & Instructor*

July 2017 – Oct 2017, June 2018 –

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 a Model-View-Controller (MVC) architectural pattern
- Thoroughly utilized 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 live stock prices from the web as JSON objects
- 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 CLI
- Stores words of dictionary in a self-implemented hashtable, and uses low-level memory management with malloc(), free(), and pointers

**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

**JPEG Recovery** 📄

*built using C*

- CLI application that recovers JPEG files from formatted memory cards (.raw files)

**Tweet Sentiment Analyzer** 📄

*built using Flask, Python, HTML, CSS*

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

**Puzzle of Fifteen** 📄

*built using C*

- Plays the puzzle of fifteen (en.wikipedia.org/wiki/15\_puzzle) in a CLI as a simple game

## other

*Technical Skills:* Python, Java, HTML, CSS, JavaScript, C, Flask, Git, Bash/Shell