

# Abhay Singh

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## contact information

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## education

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

Aug 2018 – present

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

## professional experience

### Android Development Intern

June 2017 – June 2017

*Damco Solutions Inc. – damcogroup.com*

Deployed Android application PhotoShelf ([photoshelf.in](https://photoshelf.in)) in development team of 4

- 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

### Curriculum Developer & Instructor

July 2017 – Oct 2017, June 2018 –

*Data Science for India – datascienceforindia.com*

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

### 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 game ([en.wikipedia.org/wiki/15\\_puzzle](https://en.wikipedia.org/wiki/15_puzzle)) in a CLI

## skills

Python, Java, HTML, CSS, JavaScript, C, Git, Flask, Bash/Shell, L<sup>A</sup>T<sub>E</sub>X