

# Alex Ismodes

alex.ismodes@gmail.com  
linkedin.com/in/ismodes  
qe.github.io  
615-839-6233

## EDUCATION

---

**Vanderbilt University, Nashville, TN**  
Bachelor of Science in Computer Science  
Bachelor of Arts in Earth and Environmental Sciences

*Nashville, Tennessee, United States*

## TECHNICAL SKILLS

---

### Relevant Courses

Programming with Python, Program Design and Data Structures,  
Image Processing, Programming Languages, Computer Vision,  
Agent and Individual-Based Computational Modeling

### Programming Languages

Python, C++, MATLAB, R, Javascript

### Software & Tools

Git, OpenCV, Beautiful Soup, Excel

### Framework & Databases

Django, PostgreSQL, SQLite

## PROJECTS

---

### steganography

*(Python, Python Imaging library, NumPy library)*

- Developed a Python program that uses Least Significant Bit (LSB) steganography to encode an image with an encrypted message
- Added a decoding algorithm to the program that deciphers the encoded image given the correct encryption key

### github-username-data-aggregator

*(Python, BeautifulSoup4 library, Requests library, HTML, CSS)*

- Created a Python web scraping program which scrapes GitHub username data (username availability, location, work) converting the scraped data into a CSV format
- Built-in a custom-delay/throttle that both avoids GitHub's bot-detection algorithm and respects the site's crawling guidelines

### status-web-app

*(Firebase, Javascript, HTML, CSS)*

- Prototyped a status web app in VandyHacks Summer 2020 Edition that displays the status of individuals and groups using Firebase as a backend and Javascript, HTML, and CSS for the frontend
- Intended for families or remote hackathons to let others know when you are available/busy to contact

## EXPERIENCES

---

### Varsity Tutors

*Online*

*Computer Science Teacher*

*August 2020 – Present*

- Taught Python to various 7th-12th grade students through after school online tutoring
- Helped develop lesson plans for Python fundamentals used to help teach over 20 different students throughout the country

### Vanderbilt University

*Nashville, Tennessee, United States*

*Web Developer Intern (selected as Buchanan Fellow)*

*January 2020 – June 2020*

- Create an app/web-based tree tour that allows users to locate historical trees and learn about the science/history of the arboretum
- Utilize Javascript, HTML, and CSS to assist Vanderbilt University in building the front-end of the website

## EXTRACURRICULARS

---

Society of Hispanic Professional Engineers (SHPE), Vanderbilt Free and Open Source Society, Vanderbilt Chess Club, Vanderbilt Climbing Club, VandyHacks