

# Vijay Stroup

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## Education

### The University of Central Florida

June 2018 - December 2023 (expected)

Major: Physics B.S.

Major: Computer Science B.S.

Minor: Mathematics

GPA: 3.5

Dean's List: May 2019, May 2020, December 2020

## Experience

### Sole Proprietorship

January 2021 - Present

*Python, Javascript, HTML, CSS, MongoDB, PostgreSQL, Redis, FastAPI, NextJS, Twilio, Docker*

- Create business software to help **organize business operations**, and in turn, **increase revenue** for my clients.
- Created Bookaroo - a **SMS booking service** that utilizes an API made with **Python/FastAPI** and a front-end made with **NextJS**.
- Current product being developed for this organization is an invoicing system that enables businesses to **generate many invoices with ease** through a **web interface or API**.

### UCF Physics Department - Researcher

May 2019 - Present

*Python, Matplotlib, Numpy, OpenCV*

- Designed and wrote logic for **locating atoms in space relative to each other** in a given compound for a project that predicts states of matter given the geometry of a compound.
- Designed and wrote methods for **analyzing LEEM data** to show the **time-area relation** of Lead growing on a Germanium 111 surface.

### HuskyCore - Owner

June 2017 - April 2020

*SourcePawn, Flaurm, HTML, CSS*

- Developed and maintained a gaming community of **over 400 members** that served game servers of different minigames for **players across the globe** to connect and make friends.

## Skills

**Languages:** Python, Javascript, C, Go, Java, C++ (C++17), HTML, CSS, NoSQL, SQL

**Frameworks:** FastAPI, Flask, PostgreSQL, MySQL, MariaDB, SQLite, MongoDB, NextJS, ReactJS, Numpy, Matplotlib, Pandas, OpenCV, Redis, PyTorch, Django

**Tools:** Linux/Unix, Git version-control, Visual Studio Code, Docker, Linode, Firebase

**Certifications:** MS Excel, MS Outlook, MS PowerPoint, MS Word

## Projects

### UCF FE Practice

*Python, Javascript, HTML, CSS, Flask, Docker*

- Web application that helps **hundreds of students prep** for the UCF Computer Science Foundation Exam.

### Bowser

*Python, OpenCV*

- Created and documented **methods for the lane tracking** part of Bowser - Robotics Club of Central Florida Autonomous Ground Vehicle.

### Disney Data Science

*Python, Matplotlib, Numpy, Pandas*

- Explores **genre-rating relationships** that makes Disney the most money.
- Uses historical data to give the **order and times of rides to reduce line wait time**.

### YouTube Channel

*Python*

- Create **programming tutorials** for the Python programming language.

### BlastOff

*C++, Gtk*

- **GUI displaying sensors** for a simulated rocket launch.

### Projectile

*Python, Matplotlib*

- Canon simulator in 3D space with **real life mechanics** with **auto correcting trajectory**.

### Cupid

*Python, MySQL, Discord.py*

- Discord bot to regulate a **marriage system** for users to **earn points** together and **rank up** in their server.

### Offline Pass

*Python, SQLite, Tkinter*

- Local password manager with **modern hashing and encryption**.

### Market Watch

*Python*

- **Automatically text** yourself when a **stock's points drop a certain threshold** in the day.

## Clubs

### Robotics Club of Central Florida - Secretary

- **Ensure organization and documentation** for all activities associated with the club.
- Member of the **Software Team** on the **AGV Team** for the club.