# **Luis** Abrogar

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#### Education

### **Stony Brook University**

Aug. 2017 - Dec. 2021

Stony Brook, NY

Coursework:

Bachelor of Engineering – Computer Engineering

- **Programming:** Data Structures & Algorithms, Mobile Cloud Computing, Real-Time OS, Computer Vision, Machine Learning, Networks, Network Security
- Engineering: Embedded Systems, Computer Architecture, Digital Systems, Signals & Systems, Circuits, Logic Design

## **Projects**

# **Cycling Companion App**

Used: Java, Android Studio, XML, Google Maps API, Google Firebase

- Developed an Android app that tracks a rider's live data (ie. distance) and saves it in the cloud
- Incorporated Android Sensors to calculate physical measurements such as speed and slope
- Utilized the Google Maps API to trace the ride's live path in progress
- Stored data in Google Firebase, allowing the data to be reviewed in the ride history

#### Portfolio Website (link in header)

Used: HTML, CSS, JavaScript, Microsoft Visual Studio Code, BrowserSync, GitHub

- Designed a basic, dark-themed portfolio site containing more project information using HTML and CSS
- Implemented JavaScript to utilize buttons and scroll wheel for page navigation
- Used Visual Studio Code to write code and debug, BrowserSync to verify design, and GitHub to host the site

# **Survey Data Text Miner**

Used: Python, Microsoft Azure, NLTK library, Microsoft Visual Studio

- Created a program that extracts data from surveys and converts it into a condensed, readable format
- Incorporated Azure Text Analytics to perform sentiment analysis
- Implemented a grouping algorithm to put similar key words into topics using NLTK

## Mersive Solstice-Google Calendar Integration

Used: Python, Google Calendar API, Spyder

- Designed a program that pulls a classroom's live scheduling information and pushes it into the room's installed Mersive Solstice Pod allowing the room's availability to be displayed
- Utilized the Google Calendar API to access scheduling data

# 8-Segment LED Digital Clock

Used: x86 Assembly, Atmel Studio, Oscilloscope, Multimeter, Solder

- Assembled a digital clock with basic timekeeping functions, alarm, and LED binary second counter
- Programmed clock's microcontroller in x86 Assembly using Atmel Studio

## **Work Experience**

## Stony Brook University Division of IT

Apr. 2019 - Jan.2021

Stony Brook, NY

#### Media Systems Engineering Assistant

- Performed weekly maintenance of campus-wide media systems and technology
- Reported and resolved support requests
- Collaborated with engineering teams on larger projects and installed new systems

#### **Skills**

- Languages: Java, Python, HTML, CSS, JavaScript, VHDL/VERILOG, SQL, C/C++
- IDE: Eclipse, Android Studio, Microsoft Visual Studio and VS Code, Spyder IDE
- Other: Git/GitHub, Microsoft Office(Word, Excel, PowerPoint, Publisher), Adobe Illustrator