# **Alan Constantino**

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**Education** Bachelor of Science in Computer Science

California State University, Northridge

2016 - 2022

Programming Java Python JavaScript/HTML/CSS

Skills Adaptable Determined Problem-solver Quick learner Team Player Results Oriented

## **Projects** FarmSignal (Senior Design Project)

aithub.com/AlanConstantino/FarmSignal

- Spearheaded a team of six people to develop an open-source web application as well as a command line Python application which collects and displays plant data through the use of a Raspberry Pi and various sensors.
- Led the front-end team and expedited the creation of several components and pages utilizing React alongside Material-UI for rapid component development.
- Developed a Python-based terminal application to interface with various sensors which collect and send data to the back-end through GET and POST requests. This standalone terminal application was used to effectively calibrate the external water sensor connected to the Raspberry Pi leading to more accurate data gathering.
- Aided the back-end team by implementing JWT authentication by writing a middleware in Express.JS effectively decreasing back-end development time and led to us finishing a major portion of the project two weeks ahead of schedule.
- Meticulously wrote documentation on hardware wiring and assembly to help team members assemble the project remotely. This documentation was also later used for the final public release of the FarmSignal project which was hosted through ReadTheDocs.
- Utilized JIRA to plan weekly tasks and organized weekly meetings to make sure the team was on track to complete their tasks, brainstorm new ideas, give/receive constructive feedback, and resolve any issues.

### Raspberry Pi Automatic Plant Watering System

github.com/AlanConstantino/rpi-plant-project

- Created an automatic plant watering system using a Raspberry Pi and Python. Every 24 hours, the Raspberry Pi waters a plant and sends you an email notification once watering has finished.
- Utilized the "gpiozero" library to interface with the Raspberry Pi alongside the "schedule" API to schedule email notifications at given time intervals to notify the user.
- Published an article on the social media platform "Dev.to" with step by step documentation on how to assemble and create this project with more 22,000 views.

#### Java Inventory System

github.com/AlanConstantino/inventory-system

- Developed a command line inventory system for a "make believe" movie rental storefront by utilizing Java. The system keeps track of the current number of movies in stock, orders movies if below a certain threshold, prints order labels for movies that need restocking, and also keeps track of buy and return orders.
- Utilized doubly linked lists for quick insertion and deletion of movies.
- Reads and writes to "txt" files to keep track of the movies in stock and waitlisted customers.

#### Event CSUN AI-Jam 2019

California State University, Northridge

- Worked in a team of five people to create an AI model that recognizes ASL hand signs.
- Developed a few Python scripts for image collection and manipulation which effectively sped up the process of sifting through and selecting image data to feed the neural network.
- Utilized libraries such as Numpy and OpenCV 3 for image manipulation.

#### **Language** Able to read and write Spanish proficiently.