Nicholas VanCise

(702) 601-4856
vancise@unlv.nevada.edu
nicholas-vancise.glitch.me
github.com/thenick775

PROFESSIONAL EXPERIENCE

Terbine - The Global Exchange for IoT Data *Contractor, November 2018 - Present*
Data Linker

- Develops and links real time data feeds into the continuous ingestion system
- Develops and maintains back-end infrastructure for scalable distributed data ingestion and processing
- Develops data visualizations based on archival and continuous data feeds
- Enables handling of exotic file types, file manipulation, and large static data files

Data Searcher

- Responsible for exploration of new IoT data sources and feeds to be ingested into the system
- Ensures individual feeds adhere to the Metadata Specifications, and that all ancillary information is reviewed

Academic Success Center, UNLV *Summers of 2017, 2018, 2019*
Team Lead

- Managed planning and presentation of lectures, bookkeeping, and dynamic of the ALEKS program
- Developed individual lesson plans based on statistical assessment of student performance
- Prepared and proctored ALEKS placement exam

INDUSTRY PROJECTS

Ingestion API

The Ingestion API is designed to function as the middle man between independent programs orchestrated by Apache Airflow that collect data, and multiple postgres database connections. This API was built with Golang.

Airflow Ingestion Cluster

The Airflow Ingestion Cluster is designed to fetch and process data from a multitude of public data sources using docker based web scrapers, where this data is sent to the Ingestion API for storage. This cluster was built with Apache Airflow and Docker, where the web scrapers were built using Python, Golang, and Bash.

Ingestion Index Crawler

This crawler is designed to reduce search times of already ingested data. It crawls all instances for a specified user, and produces a list that can be easily and quickly searched. This software was built using Docker and Selenium in Python.

IoT Data Visualizations
github.com/thenick775/terbine_visualizations

These projects are an interactive way to view and analyze data from a multitude of physical sensors located around the world. The indivudual visualizations were constructed using Javascript, Jupyter-Notebooks, D3, Kepler.gl, and Leaflet, where they are currently featured on the main Terbine website.

PUBLIC PROJECTS

Quorum iOS Transpilation
github.com/thenick775/Quorum_iOS_Transpiliation

This project was the culmination of my senior design, where RoboVM was re-integrated into the Quorum development toolchain, allowing Quorum to run on iOS devices. This feature was taken from development to beta testing, where the architecture and code modifications used here were integrated into Quorum Studio's source under the "Send to iOS" button, automating the process. This integration allowed Quorum to extend its reach into a market where it is needed the most.

Metroidvania
github.com/thenick775/metroidvaniafangame

This project is a small game written in Objective-C that utilizes features from Spritekit, GameplayKit, AVAudioPlayer, and JSTileMap. I have written all of the event driven animation scheme, collision detection, character physics, data storage schemes, and game logic.

Terbine Map Visualization
github.com/thenick775/Terbine-Map

This was a fun exercise in data visualization, where fixed coordinate data points in Terbine were plotted and connected on an interactive world map. The data mining was done using Selenium in Python, and data visualization was accomplished using Mapbox in R.

EDUCATION

Bachelor of Science, Computer Science — *Class of Dec 2020*
University of Nevada Las Vegas — *GPA: 3.79*

RELEVANT SKILLS

Languages: Golang, Python, Bash, Objective-C, C, Matlab, R, Javascript
Related Technologies: Docker, Amazon Web Services (AWS), Apache Airflow, Django, Selenium, D3, Git