Andrew Zhan

andrewzhan8@gmail.com | (613)-366-8327 | linkedin.com/in/andrew-zhan | devpost-andrewzhan8

Technical Skills

Programming Languages: Python, C++, C, Javascript, Bash, BitBake, Scheme, Java, SQL, HTML, CSS
Tools and Skills: Azure, React, AWS, Unreal Engine, Machine Learning, AR, Android Studio, Jenkins, Linux, Github, Jira, Nexus, Confluence

Experience

Ford Motor Company (Returning Co-op)
Embedded Software Build & Integration Developer | Python, Bash, Jenkins, Linux, XML Jan 2021 - Apr 2021

- Developed 3D Ford vehicle spray paint simulator using Unreal Engine
- Developed company Github code churn statistics and web page publication tool using Python to allow users to access these statistics easily.
- Developed Github settings configuration tool using Python. This tool allows for much faster Github repository settings changes for large numbers of repositories.
- Created and configured numerous Jenkins jobs for testing and builds of multiple production lines.
- Wrote and tested numerous BitBake recipes for the build process.
- Set up the build environment for the next generation SYNC infotainment system.

Ford Motor Company (Co-op)
Embedded Software Developer | Python, Bash, Jenkins, Linux, XML May 2020 - Aug 2020

- Developed integration tools to perform automated syncing between Jira and Github repositories and then publishing the data to Confluence Wiki pages. This allowed for improved workflow by providing up to date information regarding Github activities associated with specific tasks.
- Maintained various Python programs and Bash scripts for QNX installation and updating tools.
- Created and configured various Jenkins jobs for testing and builds.

Projects

Ctrl+Air+Space | Winner at Hack the North 2020++ | Python, React with Electron, Azure

- Ctrl+Air+Space is a desktop application that allows the user to control and navigate their computer without ever touching the keyboard or mouse.
- Using just the webcam, hand gestures, and their voice, Ctrl+Air+Space supports commands such as switching between windows, scrolling, adjusting volume, voice input, and all the functions of a mouse(moving, clicking, dragging)
- Employs a K-Nearest Neighbors model, previously trained on custom-generated data to determine the user's gesture.
- Voice input implemented using Microsoft Azure's Speech to Text API.
- User interface built using React with Electron and supports sensitivity and gesture customization.

ACE | Top 10 at Hack the Valley | Python, AWS

- ACE is a web-based virtual interviewer that allows users to practice their face-to-face interviewing skills.
- Using Python and AWS to provide real-time facial analysis of the interviewee through AWS' Face Analysis services and gives them feedback on body positioning and facial expressions.
- ACE analyses the interviewee's speech and gives feedback based on their question responses.

VM Editor| C++

- VM Editor is an implementation of the Linux VIM editor built using C++ and the ncurses library.

Education

University of Waterloo 2019-2024
Bachelor of Computer Science, Co-op
GPA: 3.9
Awarded ***Faculty of Mathematics Entrance Scholarship*** ($8000)
Awarded ***President's Scholarship of Distinction*** ($2000)

Wilfrid Laurier University 2019-2024
Bachelor of Business Administration

Awards

Winner - Hack the North 2020++ 2021
1st Place - TOHacks Great AR/VR Challenge 2020
Best Use of Blockstack Award - TOHacks 2020
University of Waterloo Euclid Math Contest School Champion and Top 6% in Canada 2019