

Professional Experience

Part-time Software Engineer

DeNOVO Solutions, Aurora, CO | August 2020 - Present

- Researched dozens of different tools and developed several minimal viable products and proof of concepts for the company
- Built a 4 node Jenkins cluster on AWS EC2 instances for multiple project CI/CD pipelines
- Developed resource allocation reinforcement learning model to be deployed on dynamic remote systems
- Developed a universal remoting CLI tool that abstracts over 30 terminal commands for 3 different types of OS terminals
- Developed an aggregation and deployment framework that utilized Kubernetes to parallel run different pipelines of applications to compare hundreds-of-thousands of data points for quality and performance
- Developed resume-to-job comparison tool that finds the best suited people for the job in the company using parsing and NLP techniques for hundreds of resumes and dozens of jobs

Software Engineering Intern

DeNOVO Solutions, Aurora, CO | May 2020 - August 2020

- Researched dozens of different tools and developed a useful contract opportunity aggregation project for the company as part of a 4-person team resulting in several proposals for the company.
- Used third-party APIs to retrieve hundreds of thousands of potential contracts for proposal opportunities
- Aggregated over 1 million documents and information on contract opportunities into MongoDB and PostgreSQL
- Pre-processed information and descriptions/documents for NLP analysis and ranking of opportunities
- Developed a lightweight frontend for users' profiles, company profiles, metrics visualization and allowing feedback for improvement of ranking and analysis improving the tool and quality of contract opportunities

Security Officer

Advantage Security, LLC, Colorado Springs, CO | August 2018 - August 2020

- Patrolled industrial/commercial sites to prevent and detect signs of intrusion and ensured the security of doors, windows, & gates
- Monitored facilities and wrote reports for daily duties and irregularities including responding to alarms, investigating disturbances, and reporting abnormalities

Intelligence Analyst

U.S. Army Special Operations Aviation, Fort Campbell, KY | February 2012 - August 2018

- Researched over a dozen locations and created products providing accurate and relevant information in a deployed environment
- Explored multi-source data and presented that information to ensure organizational tasks done in a safe and efficient means
- Monitored and tracked dynamic objects on mapping software to determine future locations based on historic data points
- Managed daily operations of a five-person section within the organization while collaborating with them to develop hundreds of weekly and bi-weekly products to provide relevant and useful information.

Education

Bachelor of Art in Computer Science

University of Colorado at Denver | May 2022

Relevant courses: Advanced Programming, Network Programming, Web APIs (MERN), IoT & Cyber-physical systems, Applied Graph Theory

High school diploma

Harrison High School at Colorado Springs | May 2011

Additional Projects

Arduino to Raspberry Pi Zero IoT

- Gathered thousands of real-time data points detected by multiple sensors and forwarded w/ Arduino nano33 to Raspberry pi zero via BLE
- Filtered data to reduce network load then published to a MQTT to stored and analyze for anomalies
- Plotly was used to visualize the data on a lightweight server running on the Raspberry pi zero

Arduino to Raspberry Pi 4 B+ Autonomous vehicle

- Raspberry pi camera recorded track for vehicle to follow
- OpenCV and NumPy used to analyze the video in real-time to determine the direction to steer the vehicle
- Raspberry pi communicated the results via I2C protocol to an Arduino that controlled the motors

Project Management Tool

- Responsible for frontend client to retrieve requested info to be displayed to the user
- Responsible for Python Backend multithreaded socket server to retrieve and store user data

Michael Martinez

Software Engineer

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Dedicated software professional and data analyst. Willing to work as a project team member and individually as required. Goal oriented, organized and adapts well to new environments. Seeking a position to use skills to help improve an organization, tackle new challenges, improve problem-solving skills and expand knowledge.

Key Skills

- Python
- C/C++
- Java
- JavaScript/React
- REST APIs
- Docker/Containerization
- Kubernetes
- Jenkins
- AWS
- ML/AI
- Agile Development
- Analytical skills
- Critical thinking
- Teamwork