Wes Dingman

Software Engineer

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Experience & Projects

Software Engineer - Next Century Corp/CACI

Primary engineer on the VMAP (Visual Media Analytics Platform - 'MediFor'- github.com/mediaforensics) contract. Full-stack engineer responsible for creating front end with Vue, Vuex, Bulma. Created and managed several Node endpoints and monitored weekly deployment cycles with GitlabCI, Docker and Ansible. Developed a multi-threaded video transcoding feature for large scale video uploads. Wrote Ansible scripts to provision, configure and deploy to several servers. Independently created a Helm chart to assist users in deploying the entire MediFor system (several dozen microservices) with a single command. Created Ansible role for users that would scaffold a single node MicroK8s cluster with GPU capabilities and deploy the MediFor system to the cluster. Wrote and maintained documentation across several repositories for the entire system.

June 2019 - Present

NFR Classification

Built an ANN (Artificial Neural Network) and RNN (Recurrent Neural Network) to aid in the automated classification of Non-Functional Software Requirements. Using data from the *Predictors Models in Software Engineering (PROMISE) dataset.* Model implemented with Keras.

September 2019 - December 2019

Public School Database

Worked with local public high school to design a database to model their students, staff members and after school activities.

Implemented database through MySQL and designed GUI with Lyap EV.

September 2018 - December 2019

Research Assistant - Towson University Mathematics

Conducted research on experimental crystallography, including modeling of 2D and 3D crystalline structures with the Python programming language.

January 2019 - December 2019

Director of Heavy-Duty Sales - 1800 Radiator

Director of sales for six locations across four states in the Mid-Atlantic region. Responsible for redirecting and leading sales efforts across several states to target national fleets and wholesale distributors. Increased department revenue 325% during tenure. August 2016 – August 2018

Education

Towson University

- Bachelor of Science in Computer Science Software Engineering Track - December 2019
- Cumulative GPA 3.71

Johns Hopkins University

- Candidate for Master of Science in Computer Science Enterprise Computing Track – January 2020 – June 2022
- Cumulative GPA 4.0

Achievements & Extras

- Towson Deans List-Spring 2016, Fall 2016, Spring 2018, Fall 2018, Spring 2019, Fall 2019
- Towson University Software Engineering Club
- Mid-Atlantic CIO Forum Scholarship Recipient
- Sigma Alpha Pi The National Society of Leadership and Success

Skills & Tools

Programming languages - Javascript, Java, Go, Python, SQL

Technologies - NodeJS, Vue, Vuex, Bulma, Bootstrap, Express, React, Gin, MySQL, MongoDB, JUnit, Pandas, TensorFlow, Keras, Jupyter, Anaconda, Jinja, GatsbyJs, JSPs, Jersey, Jackson, Apache Tomcat, NGINX

DevOps/Other - Docker, Docker-Compose, Helm, Kubernetes, MicroK8s, Minikube, Prometheus, Grafana, Ansible, Travis-CI, Snyk, Jenkins, SonarQube, Gitlab-CI, OpenStack, AWS

Operating Systems - MacOS, Linux (CentOS, Ubuntu)

Publications

W. Dingman *et al.*, "Defects and Vulnerabilities in Smart Contracts, a Classification using the NIST Bugs Framework," *Int. J. Networked Distrib. Comput.*, vol. 7, no. 3, pp. 121–132, Aug. 2019.

W. Dingman et al., "Classification of Smart Contract Bugs Using the NIST Bugs Framework," 17th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications, June 2019