
NIWC, Naval Information Warfare Center

May 2018-Present

- In an R&D lab, worked on rapid prototyping, each year contributing to new project proposals. In FY21 I served as a principal investigator on a proposal contributing to the project objective, transition targets, technical approach, architecture diagrams, project justification, execution plan, and cost plan. Aligning the proposal with Naval benefit and focus areas.
- Used CentOS in development. Created a centos guide for team members to enable CAC usage and network compliance.
- Designed and implemented a containerized data science lab using docker and docker-compose for teaching upcoming marine analysts under MOS 2659.
- Built and maintained multiple ETL pipelines in Clojure/Java for our data analytics service that used Natural Language Processing libraries to extract information from unstructured text-based data sources.
- Implemented A/B testing for machine learning models on our generalized recommender system. Built methods to compute the AUC score, f1 score, precision, and recall for information retrieval metrics.
- Ran IA scans using static code analysis tools to identify and fix vulnerabilities in project applications.
- Designed and implemented Java APIs to serve data from a client datastores to our recommender system.
- Designed and implemented Java APIs for our data analytics service resulting in maximum throughput for a client and a reduction of a VM on their virtualized system.
- Iteratively improved build and deployment pipelines within Jenkins CI/CD.
- Addressed regular production bugs and improvements in project applications utilizing Jenkins CI/CD to deliver results.
- Designed applications to be performant within a disconnected, intermittent, limited bandwidth environment.
- Contributed to the team software development guide for Clojure and Java.
- Using Agile Methodologies designed, developed, tested, and evaluated application code.
- Taught a class for a highschool Cyber Security Camp hosted by NIWC on installing and securing linux.

Euterpe Solutions LLC Freelance Work

July 2018 – Present

- Created a WordPress website for a client showcasing artwork for sale with a WooCommerce plugin.
- Created a WordPress website for a client's historical restoration, architecture, and construction company.
- Created an improved backend dashboard/administrative system for a homeschool accountability association using PHP, MySQL, HTML, JS, and CSS deployed on AWS.

Center for Digital Humanities, University of South Carolina Intern

September 2016 – April 2018

- Designed, developed, and updated websites for the Center for Digital Humanities archiving historical literature for the Victorian Lives and Letters Consortium using the Django framework and the MEAN stack.

Naval Information Warfare Center Security Engineer Intern, Data Engineer Intern, Software Engineer Intern

May 2015 – 2017

EDUCATION & CERTIFICATES

UNIVERSITY OF SOUTH CAROLINA, SCHOOL OF ENGINEERING AND COMPUTING

May 2014 -May 2018

Bachelor of Science in Computer Science

Machine Learning by Stanford University offered through Coursera

July 2021

OpenShift Beginner by KodeKloud Training offered through Udemy

July 2021

PROJECTS

Quantify - A simplified Mint clone using GoLang, ReactJs, Firestore, and GCP. Sign-in using GCP identity platform, sandbox financial data using Plaid API. Code hosted on bitbucket with a Jenkins CI/CD pipeline on GCP.

clj-gdrive-downloader - (open source) Minimal clojure utility to download shared compressed files from Google Drive.

clj-lexrank - (open source) Clojure LexRank implementation for extractive document summarization.

SKILLS

PROGRAMMING LANGUAGES – Clojure, Java, Python, Golang, ReactJS, JS, HTML, CSS, PHP, Angular

TOOLS & DATABASES – JetBrains IDE (PyCharm, IntelliJ), VsCode, Git, Atlassian Suite, Jenkins, Nexus Repository, VirtualBox, VMWare, MySQL, Mongo

OPERATING SYSTEMS – CentOS, Ubuntu, Arch, Gentoo, Windows

CLOUD COMPUTING & CONTAINERIZATION – Amazon Web Services, Google Cloud Platform, Docker, docker-compose