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Work Experience

Software Engineer/System Administrator — Feb 2024 - Current
Voters Voice Amendment (VVA)
Technologies: Typescript, Next.js, Sass, PostgreSQL, Prisma
Designed, developed, and launched the Voters Voice Amendment (VVA) platform to pilot direct initiation and voting on federal and state law proposals, bypassing traditional legislative pathways.
- Developed using TypeScript in Next.js and Sass, ensuring a fully responsive design for desktop and mobile.
- Designed and managed the PostgreSQL database. Utilized the ORM Prisma to maintain data integrity and optimize performance for high-volume user interactions.

Software Engineer/System Administrator — Aug 2022 - Current
57 West Capital Advisors, Inc.
Technologies: Typescript, Next.js, Sass
Led the development and maintenance of the 57 West Capital Advisors website, ensuring responsiveness and up-to-date content.
- Interacted with representatives of the company regularly to understand their needs and implement updates.
- Responsible for building/editing code in Next.js with TypeScript, updating external libraries, and production deployment.

Bioinformatics Engineer — Sept 2021 - July 2023
Mendelgen
Technologies: React, Redux
Developed and enhanced bioinformatic web applications for Mendelgen allowing biologists to simulate biological assays.
- Devised and created algorithms to simulate many DNA cloning techniques, along with PCR, allowing scientists to study anticipated results enhancing research capabilities.
- Built using React and extensively utilizes Redux to maintain data across features on the site.

Software Engineer — Dec 2017 - Jan 2020
Artemis Consulting, Inc.
Technologies: Python, Java, Django, Flask, Angular, Apache Solr, OpenSeadragon, Docker, AWS
Developed and maintained accessible, user friendly web applications for the Library of Congress facilitating efficient web archive searches and seamless online submission of new copyrights.
- Enhanced the ProjectOne search application on the Library of Congress website, focusing on newspaper archives, and leveraged OpenSeadragon for viewing and clipping digitized articles.
- Co-developed an online copyright submission platform using Angular and Java, deployed on AWS ECS with Docker.

Bioinformatics Engineer — May 2014 – Dec 2017
In Silico Solutions
Technologies: Java, Python, R, Javascript, HTML, MySQL, Docker
Designed and developed web-based applications, bioinformatics pipelines, and Docker images to assist biologists with the analysis of public/private biological data.
- Developed bioinformatics pipelines for the MD Anderson Cancer Center's Reverse Phase Protein Array (RPPA) core facility. Created Docker images to enable independent organizations to deploy the pipeline using private data.
- Collaborated with the Karchin lab at Johns Hopkins University to design and develop CRAVAT, a genomic sequence variant annotation software, and MuPIT, a 3D protein variant viewer. Contributed to building Docker images to facilitate secure, scalable software distribution.

Education

MS, Human and Molecular Genetics — Aug 2010 – May 2014
Virginia Commonwealth University
Thesis Research: “Comprehensive Review on the Existence of Genomic Imprinting in Aves”

BS, Biology — Aug 2006 – May 2010
College of William and Mary
Major: Biology **Minor**: Mathematics