SASSAN SHOKOOHI

linkedin.com/in/sassanshokoohi • github.com/sassansh • sassanshokoohi.ca • sassan_shokoohi@me.com

WORK EXPERIENCE

Beaty Biodiversity Museum @ UBC • Vancouver, BC, Canada   Nov. 2021 - May 2022
Database and Web Developer • Python, PHP, Bootstrap, FileMaker • (Part-Time)

- Built an Optical Character Recognition (OCR) pipeline to scan and organize 45,000+ organism images using Python
- Eliminated critical bugs and enhanced the UI and UX of PHP web app used to browse the Museum's databases
- Improved load times for 100+ daily users when searching FileMaker databases by 70% using indexes and intelligent sorting
- Implemented a [Download Dataset] feature to allow researchers to download the data for offline use and analytics

Xerus Medical Inc. • Vancouver, BC, Canada   Sep. 2020 - Aug. 2021
Software Engineer • Python, SQL, Postgres, Docker, Kubernetes, Terraform, Helm, AWS, GCP, Vue.js • (Internship)

- Implement ETL process using Python to analyze patient data from hospitals to improve wait times and COVID-19 transmission risk
- Setup and integrate remote deployments using Docker, Kubernetes, Terraform, Helm on AWS
- Reduced setup time of services by automating initialization using custom scripts and Kubernetes' init containers
- Structured and managed multiple PostgreSQL databases for operations and health data
- Built health data visualization for a Vue.js app and BI Tools: Superset and Metabase

TECHNICAL PROJECTS

Paxos Failure Detection • Go, Bash, Azure • (Team of 6)   2022

- Designed and implemented a distributed failure detection system that supports multiple nodes and clients communicating through RPC on Azure
- Researched and Implemented Paxos consensus algorithm (acceptors, proposers, learners) to verify real failures versus network partitions
- Optimized algorithm by using a random exponentially increasing backoff function to resolve contention and allow learning of new states

Spotify Song Preference (Machine Learning) • Python, Scikit-learn, Jupyter, NumPy, Pandas   2022

- Trained a Decision Tree Classifier (from Scikit-learn) using Kaggle's Spotify Song Attributes dataset to predict whether a user liked a song or not
- Optimized the ML algorithm using cross-validation to evaluate the model and optimize the max_depth hyperparameter, achieving 75% accuracy
- More advanced models such as Random Forest, XGBoost or LGBM could perform better since song preference is a complex problem

Campus Lightbox • React.js, GitHub Actions (CI/CD), Semantic-UI • (Engineer Team Lead)   2018 - 2022

- Lead a team of 4 engineers to prototype, implement and deploy a React web app that allows UBC students to browse, filter, and search to learn about all mental health support resources available on campus.
- Designed and implemented a fuzzy search algorithm to allow the finding of resources by name or description
- Implemented Continuous Integration and Continuous Delivery (CI/CD) by automating deployments to production and staging by using GitHub Actions
- Contributed to building a resource recommender tool to suggest the best mental health resource for an individual based on questionnaire responses

Places • React.js, Node.js, Express.js, MongoDB, Heroku, Ant Design • (Team of 4)   2021

- Designed and implemented a web app to help friends find the best places to visit in their city
- Researched and engineered the authentication system with salted and hashed passwords & JSON Web Tokens
- Implemented a secure RESTful API to interact with MongoDB using Node and Express and implemented search bar functionality
- Researched and implemented a cost-effective upload-your-own-image functionality using an external API (Cloudinary)
- Implemented CI/CD using GitHub Actions to test React build and deploy to Heroku

EDUCATION

University of British Columbia • Vancouver, BC, Canada   2019 - 2022
Bachelor of Computer Science - Grade: 86% (3.72/4.33 Overall), 92% (4.00/4.33 Final Year)

- Teaching Assistant (TA) for 6 consecutive terms: Provide teaching assistance in lectures, labs, grading, office hours, and discussion forums
- Coursework: Advanced Databases, Internet & Distributed Systems, Data Structures & Algorithms, Machine Learning, Full-Stack Project

University of British Columbia • Vancouver, BC, Canada   2012 - 2017
Bachelor of Science - Chemistry, Biology and Environmental Sciences

TECHNICAL SKILLS

Languages: JavaScript, HTML/CSS, Python, SQL, Go, PHP, Java, Bash, C/C++
Frameworks and Libraries: React, Vue, Node.js, Three.js, Chart.js, Bootstrap, Scikit-Learn, NumPy/Pandas, REST APIs
Developer and Cloud Tools: Git, Docker, Kubernetes, Terraform, Helm, AWS, Google Cloud, Azure, Unix/Linux
Methodologies: Agile, Scrum