Sassan Shokoohi

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Work Experience

Beaty Biodiversity Museum **Vancouver, BC**
Database and Web Developer • WorkLearn Nov. 2021 – May 2022

- 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 Museum's databases
- Improved load times for 100+ daily users when searching **FileMaker** databases by 70% using indexes and intelligent sorting
- Implemented 'download dataset' feature to allow researchers to access data quicker and easier

Xerus Medical **Vancouver, BC**
Healthcare Application Software Developer • Internship Sep. 2020 – Aug. 2021

- 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

Failure Detection with Paxos • Academic Project • Repo Mar. 2022 – Apr. 2022
Stack: **Go, Azure**

- In a team of 6; designed and implemented a distributed failure detection system that supports multiple nodes and clients
- Deployed to Azure; Uses the Paxos consensus algorithm to verify real failures versus network partitions
- Implemented a random exponentially increasing backoff function to resolve contention and allow learning of new states
- Distributed system of 2n+1 nodes can learn and handle a failure of n nodes; Uses RPC calls for all communication.

Campus Lightbox • Engineer Lead of UBC Non-Profit Group • Project • Repo Nov 2018 – Feb. 2022
Stack: **React**

- Led a team of 4 web developers to prototype, implement and deployed a web app that allows UBC students to browse, filter, and search to learn about all mental health support resources available on campus.
- Contributed to building a resource recommender tool to suggest the best mental health resource for an individual based on questionnaire responses

Places • Academic Project • Project • Repo May 2021 – Aug. 2021
Stack: **React**, **Node**, **Express**, **MongoDB**

- In a team of four; 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; plus search functionality
- Researched and implemented a cost-effective upload-your-own-image functionality using external Cloudinary API
- Implemented CI/CD using GitHub Actions to test React build and deploy to Heroku

Education

The University of British Columbia **Vancouver, BC**
B.C.S , Bachelor of Computer Science (Co-operative Education Program) Sep. 2019 – April 2022

- TA for 6 terms; Provide teaching assistance in lectures, labs, grading, office hours, and discussion forums
- Coursework: Distributed Systems (98%), Internet Computing (97%), Applied Machine Learning (92%), Computer Hardware and Operating Systems (94%), Advanced Relational Databases (89%), Advanced Software Engineering (87%)

The University of British Columbia **Vancouver, BC**
B.Sc., Combined Major in Science (Chemistry, Biology and Environmental Sciences) Sep. 2012 – April 2017

Technical Skills

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