JOEY SHI

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TECHNICAL SKILLS

Languages: Golang · Scala · Java · Python · TypeScript · JavaScript · HTML5 · CSS3 · C/C++ · SQL
Frameworks/Libraries: Angular · React · Node.js · D3.js · Flask · Pandas · PyTest · Javalin · ScalaTest
Tools/Technologies: Visual Studio · PowerShell · Azure · AWS · Arch Linux · Neovim · Zsh · tmux · Git · Docker

EXPERIENCE

Visier Inc. — April 2023 – Present
Software Developer II — *Vancouver, BC*
- Worked as an independent contributor for both the Data Connectors and Data Workflows teams.
- Implemented dataflow visualization libraries and UI components in Angular to simplify data load configuration.
- Developed essential data onboarding tools that addressed customer needs, directly enabling contract renewal.
- Maintained and monitored critical AWS cloud functions to ensure high availability and reliability.

University of British Columbia — Jul 2020 – Apr 2023
Teaching Assistant — *Vancouver, BC*
- Led tutorials for multiple sections of the computer networking course: CPSC 317.
- Designed PrarieLearn exam questions for CPSC 317.
- Acommodated 120 first-year students in calculus tutorial sessions.

Vital Mechanics Research — May 2022 – Oct 2022
Software Developer — *Vancouver, BC*
- Researched topics in geometry processing and CAD software for 3D clothing simulation.
- Developed a pipeline for extracting garment geometry and stitch information from 3D file formats.
- Implemented mathematical optimization algorithms to infer information about garment stitching.

PROJECTS

PC Builder Website | *Java · Angular · SQL · Docker* — Nov 2023 – Present
- Implemented a full-stack web application for browsing PC builds and picking PC components.
- Designed an SQL database schema and REST API to support a variety of CRUD operations.
- Wrote build scripts and docker-compose files to streamline the deployment process.
- Setup hosting for the application on a Linux server running Nginx at home.

Multiplayer Browser Platformer | *TypeScript · Node · Socket.IO* — Dec 2021 – Present
- Built a real-time multiplayer browser platformer using the Canvas 2D rendering context API.
- Designed a backend web socket API to update and broadcast player data across multiple clients.
- Implemented player movement scripts, sprite animation, game physics, map rendering, and collision logic.

Differential Equation Solver | *Python · Matplotlib · Tkinter* — Dec 2019 – Present
- Implemented efficient finite difference algorithms to solve ordinary and partial differential equations.
- Designed a graphical user interface in Tkinter and added animated plots for visualizing the generated solutions.
- Built a CI/CD pipeline with PyTest, Tox, and Github Actions.
- Published the application on the Python Package Index.

EDUCATION

University of British Columbia — Sep 2018 – May 2023
Bachelor of Science | Combined Major in Computer Science and Math — *Vancouver, BC*
- Cumulative GPA: 91%
- Dean's Honour List (2018 – 2021); Science Scholar (2019)

SCHOLARSHIPS

Stanley M. Grant Scholarship in Mathematics — Jan 2021

Charles and Jane Banks Scholarship — Sep 2020

Trek Excellence Scholarship — Aug 2020