Suhayl Patel



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EDUCATION

The University of British Columbia

Sep. 2020 – Present

Bachelor of Science in Computer Science, Dean's List (GPA: 4.0), Expected Grad. 2026

Vancouver, B.C.

Experience

Software Engineering and STEM Private Tutor

Sep. 2018 – Present

Self Employed

Vancouver, B.C.

- Conduct one-on-one lessons teaching object-oriented programming design principles in Python, Java, and C++.
- Utilize Github to ensure students develop a thorough understanding of Git version control procedures.
- Additionally tutor mathematics, physics, and other STEM subjects at elementary and high school levels.

Lead Coding Instructor and Franchise Owner/Operator

Jul. 2021 – Sep. 2023

Code Ninjas North Vancouver, Burnaby, Vancouver, Coquitlam, Langley, Abbotsford

Vancouver, B.C.

- Successfully co-owned and operated multiple Code Ninjas franchise locations, managing curriculum development, staff training, code debugging protocols, and other aspects of each location.
- Designed curriculum in a franchise game development platform, Roblox Studio, and Unity, to teach 500+ students game development using JavaScript, Lua, and C#.
- Created and led Python, web development, and block-coding weekly camps for 1000+ students to introduce students between ages 8-15 to fundemental programming concepts.
- Implemented Git version control practices at each location to ensure code history management and commit records, for thorough documentation of student progress.

Autonomous Sailboat Mechanical Team Member

Sep. 2020 – Aug. 2021

UBC Sailbot Student Design Team

Vancouver, B.C.

- Used SOLIDWORKS, Rhino 7, and Orca 3D to test the stability and equilibrium forces of geometric hull models.
- Analysed hydrostatic stability report results using Python and Excel macros to optimize performance.
- Maintained detailed project logs along with team-wide communication using Confluence, Jira, and Slack.

Projects

IoT Project Generator | JavaScript, GPT-3.5 Turbo, Node.js, Vite, React, Git

Feb. 2024 - Present

- Worked with a peer to create a React app which allows users to input the microcontrollers and other components they have access to, and receive a list of GPT-3.5 Turbo generated IoT project ideas using those components.
- Fully functional with a Node.js backend, but user functionality is still in progress.

TriviApp | Java, JSON-Java, Swing, Git

Sep. 2023 – Dec. 2023

- Developed a Trivia software to create, edit, and play user-created topics, with extensive testing using JUnit.
- Created a GUI using Swing, a Java Foundation Classes library.
- Utilised the JSON-Java library to implement read-write save state functionality for user topics.

Circuitboard AM Radio | Python, JupyterNotebook, Git

Nov. 2023 - Dec. 2023

- Created an LRC circuit to filter and select specific carrier frequencies, which is filtered to extract the audio signal.
- Employed Python's numpy, scipy, and matplot libraries to create varying fitting models.
- Analysed the fitted data and residuals to optimise the system's parameters, and adjust the LRC circuit.

Portfolio Website | HTML, CSS, JavaScript, Git

Dec. 2023

Designed a clean single-page portfolio website using HTML, CSS, and JavaScript.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, HTML, CSS, R, Lua, C, C++, C#, Racket, MATLAB, SQL Frameworks and libraries: JUnit, JSON-Java, Swing, React, scipy, pandas, NumPy, Matplotlib, Node.js, Vite Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, DrRacket, Jira, Confluence, Microsoft Office, Rhino 7, Orca3D, SOLIDWORKS, MATLAB