

Bhav Culleechurn

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Education

University of Guelph – Bachelor of Computing in Computer Science

Sep 2020 - Dec 2024

Honours Computer Science with a Minor in Psychology

Experience

Software Developer | Woodrill Ltd., Groundwork Department

Guelph, ON – June 2024 – Present

- Contributed to the development and maintenance of Woodrill's internal digital soil mapping portal *groundworkag.com*.
- Implemented features using JavaScript and PHP, including interactive tools for editing and visualizing geospatial soil data.
- Supported internal workflows through custom GIS-related utilities and assisted with general programming tasks across the department.

Skills

Languages: JavaScript, PHP, C, Java, Python, HTML, CSS, SQL (PostgreSQL, MySQL, MariaDB)

Frameworks & Technologies: Node.js, Fastify, Express.js, Docker, React, Spring Boot, Flask, Git

Methodologies & Practices: Agile (Scrum) Process, Unit Testing, Static Code Analysis, RESTful APIs

Personal Projects

geolabo! AI-Powered Interactive Geography Companion - *Node.js, Fastify, OpenAI API, Google Maps API*

- Developed an AI-driven web application that visualizes geographical data through dynamic map interactions.
- Integrated OpenAI and Google Maps APIs to produce context-aware maps with smooth zoom and highlights.
- Deployed on Railway with secure environment variable management and frontend rate-limiting.

netkuma.js, Low-Level Networking Micro-Framework - *Node.js, TCP Sockets*

github.com/bculleec/netkuma

- Implemented a minimal HTTP framework on raw TCP with custom request parsing, routing, replies, and static file serving; deployed a live site running fully on netkuma.

cozy-beige-theme, VS Code Theme

github.com/bculleec/cozybeige-theme

- Created a minimalist beige theme for Visual Studio Code, achieving 1500+ downloads and a 5-star user rating

Academic Projects

GeoJobSearch, Full Stack Web Application - *React, Spring Boot, MySQL, MariaDB, Docker, Python, Java*

- Developed a full-stack job searching web application as part of a 6-person Agile team.
- Built React frontend interfaces and Spring Boot backend services with RESTful APIs and user authentication.
- Designed MySQL schema and implemented web scraping in Python with BeautifulSoup to populate job listings.

LSTM-RNN-Based Sign Language Video Recognition - *Python, TensorFlow, OpenCV*

- Built and evaluated an LSTM-based sign language recognition model on the WSASL dataset with preprocessing and comparative performance analysis.

C Language Compiler - *Java*

- Built a simplified C compiler in Java with lexical, syntax, and semantic analysis.
- Generated syntax trees, symbol tables, and intermediate code with performance-focused design.

Certifications

Applied Suicide Intervention Skills Training (ASIST)

University of Guelph, Guelph, ON – Feb 2024