Neo Hyldelund

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Summary

Software engineering student with a strong foundation in Python, C++, and JavaScript. Experienced in building AI-powered tools, asynchronous desktop systems, and API-integrated productivity utilities. Passionate about developing responsive, modular software that enhances user workflows and bridges vision/audio interfaces with intelligent automation.

Education

Simon Fraser University   Burnaby, BC
Bachelor of Science in Computing Science,   *Sep. 2023 - Expected Graduation: May 2027*
Data Structures & Algorithms, Software Engineering, AI & Machine Learning

Academic Projects

Grow-the-Hoard | Java, Maven, OpenGL, LDtk, JUnit   Jan. 2025 - Mar. 2025
2D top-down maze game with custom levels and AI enemies

- Built with a 4-person team using Java; featured A* enemy AI and 100% test coverage via JUnit/JaCoCo.

Personal Projects

Hands-Off | Python, Whisper, Porcupine   Jul. 2025
Hands off, voice activated spotify helper

- Built a privacy-first voice assistant with wake-word detection and real-time transcription via Whisper (local or OpenAI API).
- Integrated Spotify controls using Spotipy API to play/pause music, skip tracks, and fetch playlists via natural voice commands.
- Designed an async voice pipeline with modular local/cloud backends for flexible expansion into new command workflows.

CodeSnip | Python, GPT-4o, PyQt   Jul. 2025
Copilot inspired, hotkey snip tool for learning/understanding code

- Designed a modular desktop system with a global hotkey and region selector to capture and analyze screenshots using OpenAI's GPT-4o Vision API.
- Built a PyQt-based front end connected to an async backend pipeline for image capture, local storage, API inference, and real-time response display.
- Optimized usability and responsiveness by decoupling UI rendering from GPT-4o processing latency

Technical Skills

Languages: C++, Python Java, JavaScript, SQL
Frameworks/Libraries: React, NextJS, Express, JUnit, NodeJS, Tailwind CSS,
Databases: MongoDB, MySQL, PostgreSQL
Tools & Platforms: Git, OpenGL, GLTF, VS Code, Visual Studio, Postman, JIRA

NAH