# Neo Hyldelund

778-874-9963 | neo.hyldelund@gmail.com | linkedin.com/in/neohylde | github.com/NeoHylde | neohyldelund.com

## Summary

Detail-oriented software engineering student with strong Python, C++, and JavaScript skills. Experienced in building async tools, automation pipelines, and GPT/AI-integrated interfaces. Passionate about creating fast, testable, and user-centric software that bridges backend logic with intuitive frontend experiences.

## Education

**Simon Fraser University** Burnaby, BC
*Bachelor of Science in Computing Science* *Expected 2027*
Data Structures & Algorithms, Software Engineering, AI & Machine Learning

## Academic Projects

**Grow-the-Hoard** | GitHub | *Java / Maven /OpenGL / LDtk / JUnit* Jan. - Mar. 2025
Collaborated on a team of 4 to develop a top-down maze game with intelligent enemy behavior.

- Wrote core logic and pathfinding using A* on custom level formats (LDtk).
- Achieved 100% unit test coverage with JaCoCo; CI-tested using GitHub Actions.
- Presented to a class of 80+ with live gameplay demo and source code walkthrough.

## Personal Projects

**Hands-Off** | GitHub | *Python / Faster-Whisper / Porcupine / Spotipy* Jul. 2025 - Pres.
Designed a privacy-first voice assistant using real-time transcription and voice command recognition.

- Enabled 100% hands-free music control via wake word and GPT-assisted command parsing.
- Deployed hybrid async pipeline for <250ms voice response latency.
- Supported 20+ voice intents including playback, playlist switching, and volume control.

**CodeSnip** | GitHub | *Python / PyQt / GPT-4o / OpenAI Vision API* Jul. 2025
Built a Copilot-style utility to visually analyze code on-screen and return natural language summaries.

- Integrated hotkey-triggered region selection and screenshot capture.
- Decoupled API processing from UI thread, improving responsiveness by 40%.
- Used by classmates to better understand complex codebases - 85% found it helpful in surveys.

## Technical Skills

**Languages**: Python, C++, JavaScript, Java, SQL
**Frameworks/Libraries**: PyQt, React, Next.js, Node.js, Express, JUnit, Tailwind CSS
**APIs/Tools**: GPT-4o, Whisper, Spotipy, OpenGL, Postman, Git, JIRA
**Databases**: MongoDB, MySQL, PostgreSQL
**Concepts**: Async pipelines, API design, test automation, UI/UX, voice interfaces

NAH