Sam Wobschall

Computer Science Student · Software Developer

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SUMMARY

Computer Science student at Western University, minoring in Software Engineering, who built and launched RabbitHole, a live full-stack music discovery app, with **Java 17, Spring Boot and React**. Comfortable from API design and databases to testing and deployment. Seeking a developer co-op, internship or junior role in the GTA, Hamilton or London.

EDUCATION

Western University — London, ON

Bachelor of Science, Specialization in Computer Science, Minor in Software Engineering — *In progress*

TECHNICAL SKILLS

Languages: Java 17, Python, JavaScript, SQL, HTML, CSS

Frameworks: Spring Boot 4 (WebFlux), Project Reactor, R2DBC, React 19, Vite

Data & APIs: PostgreSQL, H2, REST APIs, OAuth 2.0, Spotify Web API, Last.fm API, Caffeine caching

Testing & DevOps: JUnit 5, WebTestClient, GitHub Actions CI, Docker, Maven, Git, Sentry, Render

PROJECTS

RabbitHole – Music Discovery Web App | rabbithole.samwobschall.dev — Sep 2026 – Present

Java 17 · Spring Boot 4 · React 19 · PostgreSQL · Docker · Render — github.com/swobscha/RabbitHole

- Built and launched a full-stack app (**~5,700 lines of Java, ~2,700 of React**) that turns one seed artist into a playlist of new music, open to anyone on desktop or phone.
- Designed the ranking engine: pulls similar artists and top tracks from the Last.fm API, scores each track on popularity, similarity, preferred genres and randomness, then keeps only confident Spotify matches.
- Made sign-in optional: guests search with an app-only token (OAuth 2.0 client credentials) and copy song links, while connected users get one-click playlist creation and skip songs they've used.
- Sped up generation with parallel Spotify lookups that keep ranking order, **doubled Last.fm request concurrency**, and fetched artist stats only for artists that make the playlist.
- Secured **11 REST endpoints** with OAuth 2.0, AES-GCM encryption of stored refresh tokens, per-account rate limiting, and automatic data deletion when a user revokes access.
- Wrote **33 automated tests** (JUnit 5, WebTestClient) against a fake Spotify and Last.fm server; GitHub Actions runs them with front-end lint and build on every push.
- Deployed with Docker on Render and serverless PostgreSQL (Neon) behind custom domains, with Sentry error alerts that exclude IP addresses and request headers.

WORK EXPERIENCE

Line Cook, Prep Cook & Caterer, The Wave, Western University — London, ON

- Prepped and ran high-stakes catering for groups of up to **1,000 people**, from small meals to grab-and-go bowls.
- Batch-prepared sauces and menu items without supervision; opened and closed the restaurant and covered every station through lunch and dinner rushes.

Line Cook, Moxies — Hamilton, ON

- Prepared high volumes of orders to exact customer specifications across five stations, flattop to desserts.

Cook, KFC

- Cooked for a busy restaurant; received and checked shipments and kept the kitchen organized.

VOLUNTEERING

Volunteer, Stoney Creek Co-op Preschool Summer Camp — Stoney Creek, ON

- Set up and took down camp equipment, supported daily routines, and streamlined end-of-day parent pickups.