JOSHUA LIN

(604)-671-0627 | linynjosh@gmail.com | https://www.linkedin.com/in/linynjosh/ | https://linynjosh.github.io/

EDUCATION

University of British Columbia   Expected: May 2025
BSc In Computer Science
- Relevant Courses: Applied Machine Learning, Relational Databases, Algorithms and Data Structures, Software Engineering.

EXPERIENCE

Microsoft   May 2024 - Aug 2024
Incoming Software Engineer Intern
- Collaborating in the design and implementation of innovative software solutions and features for enhancing document collaboration within the Microsoft Office suite.

Amazon   May 2023 - Aug 2023
Software Development Engineer Intern
- Led ongoing design meetings for the PastInteractions Amazon API contract, addressing use cases, performance, batching strategies, deployment, and maintenance.
- Developed and deployed a Java-based PastInteractions internal tool that retrieves and analyzes key buyer habits and past purchase interactions, enabling personalized product recommendations with latency under **100 milliseconds**.
- Elevated the core user experience for **40 million** Amazon mobile app users by implementing web labs and enhancing the Your Orders Carousel with dynamic visual showcases of buyers' past interactions.

Teaching Assistant (Faculty of Computer Science)   May 2022 - Present
CPSC 310 Introduction to Software Engineering @ UBC
- Instructing fundamental software design principles: architectural design, object-oriented design, and design patterns.
- Leading students through the full software development life cycle: requirements, design, implementation, testing, deployment, and maintenance.

CPSC 210 Software Construction @ UBC
- Created Java programming questions and developed test suites with auto graders in Docker containers.
- Instructed students on fundamental OOP concepts, covering classes, objects, inheritance, and polymorphism.

CPSC 110 Computation, Programs, and Programming @ UBC
- Designed auto-graded functional programming questions using Python, HTML, and Docker.

SAP   Sept 2022 - Dec 2022
Software Developer Intern
- Developed Grafana and Prometheus monitoring tools in Kubernetes clusters for an Asynchronous Task Service (ATS) and Distributed Job Manager (DJM).
- Optimized performance by dynamically adjusting cluster nodes and pod deployment, leading to a **30%** reduction in task execution time and a **20%** decrease in timeout jobs for ATS and DJM.
- Developed official and testing API endpoints for the ATS and the DJM, while increasing unit test coverage by **5%**.

Google Summer of Code   May 2022 - Aug 2022
Software Engineer Intern
- Developed and deployed a command-line tool conformance checker on **PyPI** to validate SPDX-formatted Software Bill of Materials (SBOM) against the National Telecommunications and Information Administration's (NTIA) elements guidance.
- Deployed the NTIA Conformance Checker on **tools.spdx.org**, allowing **30K** monthly users to upload SBOMs and verify data completeness.

OPEN SOURCE PROJECTS/CONTRIBUTIONS

spdx/ntia-conformance-checker
The NTIA Conformance Checker checks for minimum elements that are "the essential pieces that support basic SBOM functionality and will serve as the foundation for an evolving approach to software transparency".
- Utilized existing SPDX libraries to parse and log errors while checking if the SBOM contains the minimum required data fields: supplier/component name, component version, unique identifiers, dependency relationships, author, and timestamps.
- Created a command line tool using Click that outputs machine-readable JSON containing the missing fields of an SBOM.

spdx/spdx-online-tools
The SPDX online tool provides an easy all-in-one place to upload and parse SPDX documents for validation, comparison, conformance check, conversion and search SPDX license list.
- **Contribution/Pull request**: Added the NTIA Conformance Checker API to **tools.spdx.org.**

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, Swift, C, C++, HTML, CSS
Technologies: MySQL**,** SQL, PyTorch, Node.js, Next.js, AWS (CloudWatch, CloudFormation, DynamoDB), Docker, Kubernetes, Git, Github, Grafana, Swift, REST APIs, JSON, Django, React, Prometheus, Kata, Jenkins, Jira,, Linux, PostgreSQL, PyPI, npm