**Stanley Yang**

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**SKILLS**

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| * **Programming Languages:** Java, C/C++, Python, Shell, JavaScript, SQL, OCaml, Racket, Ruby, LaTeX, MATLAB * **Frameworks:** PyTorch, NumPy, Docker, JUnit, ReactJS, Java Spark, Java Swing, DGL, Figma, AWS, DuckDB |

**EDUCATION**

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| **University of Washington,** Seattle, WA  *Bachelor of Science in Computer Science*, Major GPA 3.92/4.00 | Expected Graduation: June 2026 |
| * Selected Courses: Software Design, Data Structure, Database, Machine Learning, Two-Year Honor Math Series * Award: UW ICPC Winter Programming Contest 2024 - Second Place | |

**WORK EXPERIENCES**

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| [**Amazon AI Lab**](http://dgl.ai/)  *Applied Scientist Intern* | | Jun. 2024 – Sep. 2024  Shanghai, China |
| * Enhanced Deep Graph Library with bug fixes, performance optimizations, and automated pipelines * Implemented reverse edge feature to graph training datasets, **improving node classification accuracy** by **16%** * Improved **CSC graph** **neighbor sampling efficiency by 4%** via backend **PyTorch C++ API** operator optimization * Built a **Docker-based automated release pipeline** with integrated **unit tests** and **daily regression framework** * Integrated **version update** automation and **AWS S3 deployment** for efficient **wheel distribution** | |
| [**Teaching Assistant**](https://courses.cs.washington.edu/courses/cse341/23au/)  *Teaching Assistant in CSE 341 & CSE 413 Programming Languages* | | Mar. 2023 – Jun. 2024  Seattle, WA |
| * Led course on **functional programming**, language design and interpreter construction using OCaml and Racket * Conducted weekly quiz sections and held office hours for **100+ students**, addressing diverse learning needs * Developed **autograder scripts** with **700+ test cases** and led **infrastructure development** * Assisted professors in homework design, created rubrics, and coordinated TA grading for **600+ assignments** | | |
| [**PLSE (Programming Languages and Software Engineering) Lab**](https://uwplse.org/)  *Database Research Assistant* | | Jun. 2023 – Aug. 2023  Seattle, WA |
| * Optimized data processing for **400+ million data points** using **SQLite scripts** to support database research * **Preprocessed** and cleaned complex datasets, executing **16,000+ view scripts and queries** | | |

**PERSONAL PROJECT**

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| [**Primitive Tagging for Everyday Objects Research**](https://github.com/merlinyx/primtag) | Jan. 2024 – Jun. 2024 | | |
| * Designed semi-automatic methods for identifying **3D geometric primitives** on input meshes * Enhanced **user interface** for intuitive region selection and primitive type specification, benefiting novice users * Implemented functionality to crop user-selected mesh data, optimizing mesh generation * Applied **differential 3D learning** techniques to optimize primitive shape parameters using **PyTorch** | | | |
| **CaCL (Change and Chance Language) Interpreter & Compiler** | | Jan. 2024 – Mar. 2024 | |
| * Built **interpreter** with comprehensive language features including **parsing, type checking**, and annotations * Authored **1300+ lines of tests** to validate interpreter functionalities and error-handling mechanisms * Applied **compiler rewrite strategies** to optimize code dependencies and **boost compilation speed** * Integrated innovative features like parallel let, short-circuiting, and higher-order functions | | | |
| **Campus Path Finder** | | | Feb. 2023 – Mar. 2023 |
| * Created a **web app** using Java, **React,** and **Spark framework** to navigate 52 campus buildings * Implemented **Dijkstra's algorithm** for navigation and **MVC pattern** for **GUI**, tested with **5000+ lines of Jnit tests** | | | |

**EXTRACURRICULAR/COMMUNITY INVOLVEMENT**

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| **Student Volunteer in ACM SIGMOD conference 2023**, Bellevue, WA | Jun. 2023 |
| * Assisted for **500+ scholars** across **six sessions**, supporting presenters and resolving technical issues | |