Tony Li

lizhongxian23@gmail.com | (415) 741-6345
www.linkedin.com/in/tony-li-17b169305
https://github.com/tonyzx0816

EDUCATION BACKGROUND

San Jose State University   San Jose, CA
Bachelor of Software Engineering   *Aug 2024 – Dec 2026*
Major: Software Engineering   GPA: 3.95/4.00
Courses: Object-oriented Design, Computer & Human Interaction, Engineering Report, Engineering Statistics

City College of San Francisco   San Francisco, CA
The Dean's Honor List in Fall 2022~2023   *Jan 2022 – May 2024*
Major: Computer Science   GPA: 3.96/4.00
Courses: Data Structure & Algorithm in Java, Mathematics

PROFESSIONAL EXPERIENCE

Cashier-UI: Java-Based Cashier & Inventory Management System   *Oct 2024 - Dec 2024*
Java, AWT, JSON, OOP, MVC

- Developed a cashier application with a ***GUI*** using ***Java AWT,*** featuring inventory management, invoice processing, and receipt generation.
- Integrated ***JSON-based*** inventory data storage, enabling real-time product search, stock tracking, and transaction processing.
- Applied ***OOP principles*** and Singleton Design Pattern for session management and followed MVC architecture for scalability.

Capped Linked List: Java-Based Bounded Linked List Implementation   *Oct 2023 - Nov 2023*
Java, Data Structures, OOP, Generics, Linked List

- Designed and implemented a bounded linked list (Front Back Capped List) in ***Java***, allowing insertions and deletions only from the front or back with a fixed capacity.
- Developed a linked ***list-based data structure*** (Linked Front Back Capped List) with Comparable interface, supporting element comparisons and efficient indexing operations.
- Created a comprehensive test suite (Project B Driver) to validate list operations, including addition, removal, indexing, and capacity constraints, ensuring robust functionality.

Crime Analyzer: Binary Search Tree-Based Crime Data Processing System   *Nov 2023 - Dec 2023*
Java, Data Structures, Binary Search Tree (BST), OOP, File I/O, CSV Parsing

- Developed a Binary Search Tree (BST)-based system to efficiently store, search, and analyze police reports from large datasets.
- Implemented duplicate-aware BST (BinarySearchTreeWithDups) to optimize crime incident tracking, frequency analysis, and custom search operations.
- Processed and analyzed police report data from CSV files using Java I/O, enabling efficient retrieval and statistical crime trend analysis.
- Designed and optimized tree traversal algorithms to improve search efficiency, data structure testing, and real-time crime analysis.

ADDITIONAL INFORMATION

Skills: AI Fundamentals, Machine Learning, Java & Python (Programming Language), Project Management
Languages: Mandarin (native), English (proficient)