Sean Li

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Education

University of Michigan | Stephen M. Ross School of Business Graduation Date: May 2025
Bachelor of Science in Computer Science; Minor in Business Administration *Cumulative GPA: 3.6*

Relevant Experience

Big Data Engineering Intern May 2024 - Aug 2024
Lotus Technology Inc *Hangzhou, Zhejiang, China*

- Developed and optimized distributed data pipelines using Spark to preprocess and analyze large-scale autonomous driving datasets, reducing processing time and improving query and search efficiency by 28%
- Devised comprehensive system observability using Prometheus for metrics collection and Grafana for real-time dashboards, enabling proactive performance optimization and reducing system downtime by 15%
- Designed real-time data workflows with Flink to process sensor streams from LiDARs and cameras creating SQL scripts parsing ROS messages into CSV files using SD-map classifications for autonomous driving development
- Deployed a SQL script integrating two distinct data sources into a unified table, sorted by tags, utilizing Hadoop to consolidate cloud data to OSS, resulting in faster lookups enabling seamless cloud uploads to OSS

Research Engineer - Computational Biology Visualization Dec 2022 - Dec 2023
University of Michigan Lucelegans Project *Ann Arbor, MI*

- Engineered a C++ program to process signaling from circuit board to read, decode, and process RFID data, enabling audio and visual representations of C. elegans movement patterns for interactive museum exhibits
- Optimized C++ codebase focused on Arduino-based circuit interactions by implementing enhancements through SPI and MFRC522, facilitating RFID signal activation to dynamically illuminate specific components in model
- Conducted interdisciplinary research combining computer science and biology to develop and validate a computational pipeline that translates C. elegans neural activity patterns into novel interactive multimedia visualizations for scientific education

Projects

AI-Enhanced Nutrition App | *React Native, SQLite, Expo, Javascript, AI Integration* March 2025 - Present

- Co-developed Nutrili, an AI-powered mobile app, with a Harvard assistant professor featuring intelligent nutrition label scanning, real-time goal tracking, and personalized data visualizations to make nutritional science accessible
- Presented users with a goal-driven nutrition interface that adapts macronutrient metrics based on users' health objectives, allowing precise tracking and progress measurement
- Pioneered a cross-platform mobile app using React Native and Expo Router, integrating asynchronous JavaScript and SQLite to support real-time data processing and personalized insights at scale
- Integrated Anthropic's LLM to let users photograph nutrition labels and automatically extract structured nutritional data into a personal in-app database, reducing manual input through AI-driven parsing and classification
- Architected and developed user-facing AI-powered visualizations, including dynamic charts and adaptive interfaces, to translate raw nutritional data into actionable insights, improving user understanding and engagement

Pocome | *C#, Networks, Threading, Server, Unity Game Engine* December 2024 - Present

- Implemented and designed cross-platform multiplayer mobile game with Unity and C#, enabling long-distance couples and friends to stay connected by collaboratively building and customizing a virtual home in real time
- Refactored gameplay mechanics, achieving 40% reduction in memory usage and improving gameplay smoothness
- Collaborated with artists to create a dynamic, network-synced weather system, enhancing immersion and player engagement through real-time environmental changes

Technical Skills

Languages: C, C++, C#, Python, Java, JavaScript, Swift, MATLAB, SQL
Frameworks: PyTorch, React.js, Node.js, Bootstrap, Flask, Docker
Tools: Prometheus, Grafana, Kubernetes
Libraries: TensorFlow, scikit-learn, pandas, NumPy, Matplotlib, seaborn, request_toolbelt
Coursework: Machine Learning, Data Structures and Algorithms, Web Systems & Information Systems, User Interface Development, Computer Organization, Foundations of Computer Science, Applied Linear Algebra