David Hope Lim

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Education

Collin College   **Aug 2023 – May 2024**
*Computer Science & Information Technology — **GPA: 3.62** — **Dean's List***   *Plano, TX*

The University of Texas at Dallas   **Aug 2022 – Present**
B.S. — Computer Science   *Dallas, TX*

Notable Coursework: Data Structures & Algorithm Analysis, Systems Programming in UNIX, Software Engineering, Computer Architecture, Discrete Mathematics, Programming Language Paradigms

Technical Skills

Programming Languages: Python, Java, C++, C, HTML, CSS, JavaScript, Bash/Shell, MySQL, MIPS, XML

Software: Windows, Linux, Microsoft Applications, VSCode, Git, Ubuntu, MARS, MobaXTerm, PuTTY, VI, Powershell,

Libraries/Frameworks: Docker, ROS, Node.js, Fast API, React Native

Hardware/Networking: TCP/IP, UDP, GPS, Ethernet, LiDAR

Work Experience

RevIQ   **Aug 2025 – Present**
Software Engineer   *Las Vegas, NV*
- Develop and maintain **SSP** adapters using **Python** and a **virtual environment**, interacting with company-specific APIs through a HTTP-based service **API**, utilizing headers and query parameters
- Analyze and filter large datasets of advertiser information using **Polars**, collecting specific metrics and gauging company performance, improving efficiency by 30%
- Read and extract data from **CSV** and **JSON** HTTP-based service response, handling session and account keys to ensure metrics and tokens are securely stored in a **database**

Project Experience

Amazon Delivery Tracker | *Source Code*   **Java**
- Developed a coordinate-based Amazon delivery tracker using **linked lists**, **binary search trees**, and **graphs** to manage driver data and optimize route validation
- Designed and developed a **custom user-defined hash table** using **simple chaining** and **rehashing** for rapid vertex lookups, improving delivery route validation performance
- Applied **traversal, sorting, and searching algorithms** to authenticate route validity, detect disconnected paths, and prevent invalid deliveries

Diagnostic System: Autonomous Driving | *Source Code*   **ROS2 | Docker | Python | C++**
- Engineered a meticulous diagnostic system of a **Level 4 fully autonomous driving** vehicle for UTDallas's autonomous driving **research** program using **Python**, **C++**, and the **ROS2** framework
- Examined and established a **fail-safe alternative** to critical faults within a full-stack software structure, providing a robust and **applicative error-detection system** and increasing fault recoverability by 33%
- Implemented an efficient **ROS2** service call system to traverse through a comprehensive node structure, utilizing **subscribers** and **publishers** to allocate and organize an array of **DiagnosticStatus** messages

Personal Website | *Website* | *Source Code*   **HTML | CSS | JavaScript**
- Developed an intuitive **HTML** website tailored for a portfolio viewing experience using **CSS** and **JavaScript**, seamlessly finding a balance in **UI/UX** design
- Maintained and displayed multiple elements efficiently, establishing a seamless integration with **HTML** and **CSS** through the **development cycle**

Additional Information

Languages: English, Spanish (intermediate), Korean (beginner)

Eligiblity: U.S. Citizen, Available to work in the U.S. for internships full-time with no restrictions