

# Darren Lin

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Darren-lin

## EDUCATION

### University of California, Santa Cruz

Sep 2020 - Jun 2024

Bachelor of Science, Computer Engineering - GPA: 3.73/4.0

**Courses:** Data Structures and Algorithms, Assembly, Programming Abstractions, Multi-variable Calculus, Computer Architecture, Logic Design, Principles of Computer Systems Design, Electronic Circuits, Computer Networking, Intro to Software Engineering

## WORK EXPERIENCE

### Software Engineering Intern @ CDK Global

Jun 2023 - Present

- Revamped order step user interface to distinguish preorders from orders for all 224 Hyundai Canada dealers
- Created a new API endpoint to retrieve lender program data from Roadster's CalcEngine, utilizing provided auto loan and lease parameters including credit scores, terms, and annual mileages
- Streamlined user interface changes to lender programs comparison modal to support the addition of new data pulled and calculated by new API endpoint; resulted in a 109% increase in hits
- Generated nearly 800 hits on the compare lender programs modal across 320 dealers in 3 months

### Software Engineering Intern @ CDK Global

Jun 2022 - Aug 2022

- Facilitated the capability for generating invoices for "other" payments and processing refunds using the Stripe API across 2805 integrated dealerships
- Maintained Shift certification by porting code that sent LivePerson analytics for all live chat actions on all Roadster supported dealerships to Shift
- Developed an algorithm to auto-generate content security policies on page load for hundreds of dealerships to improve security for Roadster payment slideouts
- Collaborated with a team of 5 on a mobile application for Roadster's dealer management website for company wide hackathon

### Group Tutor and Grader @ UC Santa Cruz

Mar 2021 - Jun 2023

- Supported 150+ students in debugging Assembly via 1-on-1 Zoom calls 5 days a week for 3 hours over 3 quarters
- Resolved Verilog errors for 200+ students in 4-hour lab sessions each week for 2 quarters
- Evaluated assignments and assessments for nearly 300 students over the course of 1 quarter

## PROJECTS

### HTTP Server

C, Syscalls, Regex, Pthreads

- Executed input sanitization using POSIX regular expression by breaking up HTTP requests into request line, header field, and message body
- Employed a dispatcher thread, N (user-specified) thread worker pool, and thread-safe circular queue
- Produced audit log entries after completing a request to ensure atomicity and coherency of GET and PUT requests

### Don't Fall

Verilog, Basys3, Vivado

- Engineered a captivating single-player game on the Basys3 board, challenging players to navigate randomly sized holes, collect coins of varying heights, and control jump height by pressing and holding the U-button
- Introduced randomness for game components using 8-bit linear feedback shift registers
- Established game logic using only logical operators and 2 state machines to control the player and the coin

### Vroomers

JavaScript, HTML/CSS, React, Firebase

- Enabled secure login and account creation using Firebase authentication and cloud functions
- Implemented a map interface using Google Maps API to display all scheduled events and user's location
- Incorporated Firebase cloud functions to facilitate event management and incorporated Material User Interface tabs to design a comprehensive Events page for streamlined functionality

## SKILLS & AWARDS

### Languages

Ruby on Rails, Python, C/C++, HTML/CSS, JavaScript, Verilog, Java

### Miscellaneous

Linux, React, TypeScript, Vue, Firebase, Git

### Awards

Dean's Honors List (Sep 2020 - Present), Eagle Scout (Apr 2019)