

# Darren Lin

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Darren-lin

## EDUCATION

### University of California, Santa Cruz

Sep 2020 - Jun 2024

Bachelor of Science, Computer Engineering with Highest Honors; Computer Science Minor - GPA: 3.78/4.0

**Courses:** Software Engineering, Data Structures and Algorithms, Computer Networking, Computer Systems Design, Computer Architecture, Embedded System Design, Hardware Design, Logic Design, Electronic Circuits, Signals and Systems

## WORK EXPERIENCE

### Associate Software Engineer @ CDK Global

Jun 2024 - Present

- Deployed background jobs to fetch and process **10,000+ vehicles** from in-transit inventory feeds for Hyundai Canada, JLR, Mini Shift, Infiniti Shift, and Mazda Shift
- Refactored background job logic to replace FTP server retrieval with system command-based fetching for JATO squish VINs and JATO specs
- Architected 4 background jobs to **pull, process, and cache** build data on to S3 for **7500+** JLR and VW/Audi vehicles from DMotorworks' FTP server
- Implemented an importing pipeline that fetches and imports **5,000+ style JSONs** daily using the Chrome VSS API
- Resolved dealership inventory issues, ensuring successful execution of jobs that import **100,000+ vehicles** daily

### Software Engineering Intern @ CDK Global

Jun 2023 - Sep 2023

- Overhauled the order step user interface, enabling clear differentiation between pre-orders and standard orders for all **224 Hyundai Canada dealerships**
- Optimized the lender program comparison modal UI to accommodate new data from the CalcEngine API, leading to a **109% increase** in user engagement
- **Generated nearly 800 interactions** with the lender program comparison modal **across 320 dealers** within **3 months**
- Created a new API endpoint to retrieve lender program data from Roadster's CalcEngine, integrating auto loan and lease parameters such as credit scores, terms, and annual mileage

### Software Engineering Intern @ CDK Global

Jun 2022 - Aug 2022

- Enabled invoice generation for "other" payments and facilitated refund processing across **2800+** integrated dealerships using the Stripe API
- Maintained Shift certification by adapting code to send LivePerson analytics for live chat actions to Shift across all Roadster-supported dealerships
- Developed an algorithm to automatically generate content security policies for **100+ dealerships**, enhancing 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

## PROJECTS

### Tassel

JavaScript, HTML/CSS, React, AWS Amplify, GraphQL, DynamoDB, S3

- Spearheaded a team of 7, to integrate in-app messaging and a machine learning-based recommendation engine, while also organizing weekly meetings with sponsors to showcase the progress of our features
- Introduced an innovative friend request system, enabling all **120,000+ alumni** to seamlessly connect with each other
- Established in-app messaging using Amplify's Datastore functions and a GraphQL schema for efficient data querying

### JPEG Compressor

Scala, Chisel, sbt

- Designed Chisel modules to perform Discrete Cosine Transform, ZigZag Parsing, Quantization, and Run Length and Delta encoding
- Validated Chisel modules via rigorous unit testing, ensuring accuracy by cross-referencing outputs with Scala models
- Employed a modular architecture enabling easy integration and testing of different compression stages

## SKILLS & AWARDS

### Languages

Ruby, Scala/Chisel, Python, C/C++, HTML/CSS, JavaScript, Java, Verilog

### Miscellaneous

Rails, React, TypeScript, Vue, AWS Amplify, Firebase, GraphQL, S3, Heroku, Git, Linux, sbt

### Awards

Dean's Honors, Eagle Scout (Apr 2019), Tau Beta Pi