

# Daniel Qu

SOFTWARE DEVELOPER

📞 +1-647-974-1176 | ✉ daniel.qu@uwaterloo.ca | 📷 danielq987 | 🌐 danielq987

## Skills

**Languages** JavaScript/TypeScript, Python, C, C++, Bash, SQL, HTML/CSS, Bash  
**Frameworks** React, Redux, Express.js, Node.js, Flutter  
**Tools** Git, Linux, AWS (EC2, S3), Jenkins, Docker, Kubernetes, Jira

## Education

### University of Waterloo - 92% GPA

B.A.Sc. IN HONOURS MECHATRONICS ENGINEERING

Sep. 2020 - Present

Waterloo, Canada

- Computer Structures and RTOS, Microprocessors and Digital Logic, Data Structures and Algorithms

## Work Experience

### PlayStation - Sony Interactive Entertainment

DEVOPS SOFTWARE ENGINEERING INTERN

Sep. 2022 - Dec. 2022

AWS, Kubernetes, Jenkins

- Investigated and deployed PLG log aggregation stack on Kubernetes cluster to enhance internal telemetry.
- Created logging dashboards in Grafana to improve the accessibility of application logs.
- Used Python scripts and Jenkins to periodically monitor and clean up unused AWS resources.

### PlayStation - Sony Interactive Entertainment

FRONT END SOFTWARE DEVELOPER INTERN

Jan. 2022 - Apr. 2022

React Native, Redux, Python, Jenkins

- Supported the 2022 PlayStation Plus release by implementing checkout logic and UI features.
- Wrote and performed frontend regression tests to minimize and automatically report last-minute bugs.
- Achieved first prize in global internal hackathon by creating a calendar app for the PS5.

### Dreamschools

FULL STACK SOFTWARE DEVELOPER INTERN

May. 2021 - Aug. 2021

React, Express, PostgreSQL, Stripe

- Addressed slow Stripe API calls by parallelizing/batching requests, improving load times by up to 10x.
- Took initiative to improve code quality by extracting reusable components and reorganizing file structure.
- Developed messaging system using Twilio and PostgreSQL to introduce SMS client communication.
- Overhauled checkout process by supporting additional payment methods and simplifying checkout UX.

## Projects

### Hexle - [Live Link](#)

[GITHUB](#)

Feb. - Mar. 2022

TypeScript, React, CSS

- Created a Wordle derivative in React with returning users from over 40 countries worldwide.
- Refactored React state management and components to improve code quality and readability.

### Midnight Sun Driver Dashboard - Solar Car Team

[GITHUB](#)

Apr. - Sep. 2021

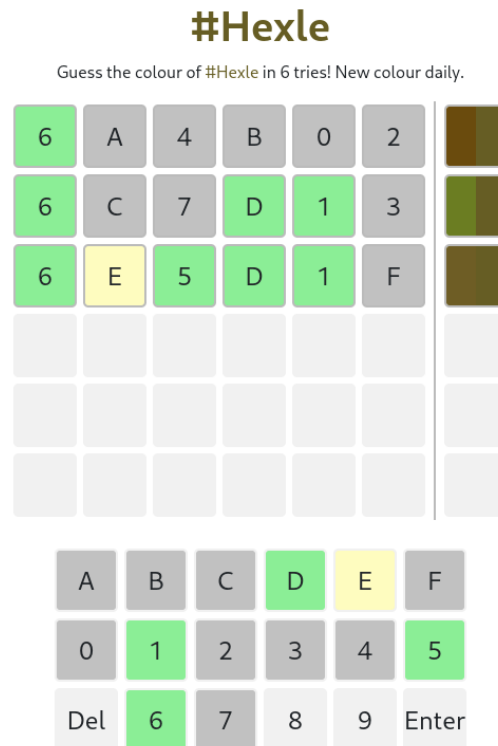
Flutter, Dart, Python

- Built digital dashboard for Midnight Sun's solar vehicle, including speedometer, battery life, and more.
- Performed CAN integration testing by mocking CAN messages to send to the dashboard.
- Effectively used Flutter animations to direct driver attention to appropriate locations.

## Extra Project Demos

Visit <https://tinyurl.com/daniel-qu-portfolio> for short video demonstrations.

### Hexle - Wordle Derivative (Typescript, React, CSS)



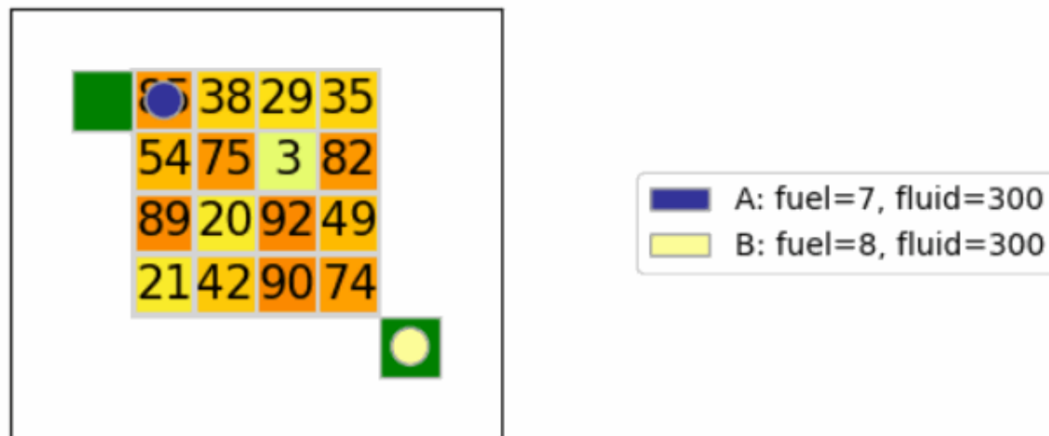
- Try the guessing game out at [franklin.github.io/hexle/](https://franklin.github.io/hexle/)

### Midnight Sun Driver Dashboard (Flutter)



- Display used as dashboard for Midnight Sun's Solar Car during an international solar car competition.
- Shows a subtle animation to alert driver when recommended speed changes.
- Used gradients effectively to improve UI and meet design specifications.

## Waterloo Engineering Competition 2020 - Programming Division (Python)



- Solved programming optimization problem with team, involving giving directions to cleaning robots.
- Carefully considered and developed algorithm to choose robot starting locations (green tiles).
- Maximized competition score by maximizing tiles cleaned, minimizing fuel, fluid, and number of robots used.

## Spotify-Track (TypeScript)

```
3:49:00 AM
~ [REDACTED] is listening to - Lovesick by Trevor Daniel
3:49:20 AM
~ [REDACTED] is listening to - Anyone by SEVENTEEN
~ [REDACTED] is listening to - Angel Baby by Troye Sivan
~ [REDACTED] is listening to - 永遠に by Little Glee Monster
3:49:40 AM
3:50:00 AM
~ [REDACTED] is listening to - Stereo Hearts (feat. Adam Levine) by Gym Class Heroes
~ [REDACTED] is listening to - La thune by Angèle
~ [REDACTED] is listening to - Are You Bored Yet? (feat. Clairo) by Wallows
~ [REDACTED] is listening to - Come to Life by Kanye West
3:50:20 AM
~ [REDACTED] is listening to - California Dreamin' - Single Version by The Mamas & The Papas
~ [REDACTED] is listening to - 青花瓷 by Jay Chou
~ [REDACTED] is listening to - Jocelyn Flores by XXXTENTACION
~ [REDACTED] is listening to - Evergreen by softy
~ [REDACTED] is listening to - Catching On (feat. Nevve) - B-Sides Remix by Elephante
3:50:40 AM
~ [REDACTED] is listening to - Rumor by Moore Kismet
~ [REDACTED] is listening to - Passionfruit - Stripped Version by Josh Saburto
```

- Created this quick Node script since Spotify does not officially support an API for friend listening activity.
- Used open-source API wrapper to track and store friend listening histories in MongoDB.