Rent-A-Driveway (R.A.D)
Korbie Sevilla, Henry Dang, Scott Melero, Adithya Somasundaram, Ivy La

**Abstract**
Rent-A-Driveway allows the community to post and rent driveways for parking; making it easier to connect drivers in crowded areas to homeowners with open spaces available! This is accomplished through the R.A.D mobile app which uses a combination of Google API services to search for and create parking spaces.

**Why a Parking App?**
In the United States, the average driver spends approximately **17 hours per year** searching for parking at a cost of $345 per driver.

At UCSC, **2898 students purchase parking permits**, roughly 600 students are on the waitlist for those permits, and about **20,000 parking citations** occur each academic year. The demand to increase parking accessibility can be addressed by monetizing and opening access to driveways.

**Features**
- **Post your driveway** for users to rent, bringing more money to your wallet.
- **Interactable map** to search and filter through available parking spaces and vehicle specific utilities such as electronic charging.
- **“Park now”** Find available spaces near you, for you, in real time.
- **Smart pricing algorithm** that suggests a spots worth based on time-of-day demand.
- **Driveway Schedule** to reserve parking for a later date.

**System Architecture**
Our application was designed with Adobe XD and Supernova Studio. It uses a Google Firebase backend, a Flutter front-end, and Google cloud services to handle the functionality.

**Future Work**
Next year, R.A.D will implement security features such as transactions and proof of residency.

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