SmartPark: IoT-Driven Assisted Parking

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Project Overview

Goal

Make parking on campus simpler for all

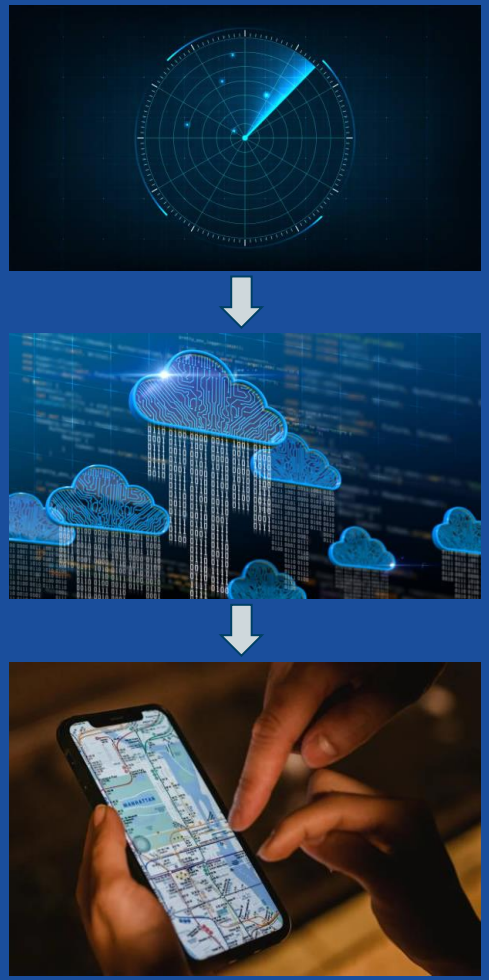
User Needs

- Quick parking
- Parking availability
- Easy payment
- Stress relief

You don’t want to be like this guy

Functional Requirements

- Sensors must be updating to server in real time
- Mobile application
  - Directs the driver to a open space
  - Allows users to reserve spots
- A way to communicate to users without the app
- Accept payments



Nonfunctional Requirements

- Low Latency
- Reliable
  - Application (Process user inputs)
  - Server (No Downtime)
  - Hardware (Low maintenance)
- Secure payments
- User friendly

Constraints

- Time
- Budget
- Using an existing parking lot
- Accuracy of ultrasonic sensors

Questions?