



# HopOn: Real-Time Location Tracking for Shuttle Services

Dagoberto Tellez, Jeff Cui

Advisor: Jonathan Johnson

Affiliation: Department of Computer Science, Trinity College

## WHAT IS HOPON?

**HopOn** is a mobile app that shows shuttles live, lets riders request stops, and gives quick ETAs, making rides smoother and safer on campuses, at airports, and in gated communities.

## WHY IT MATTERS

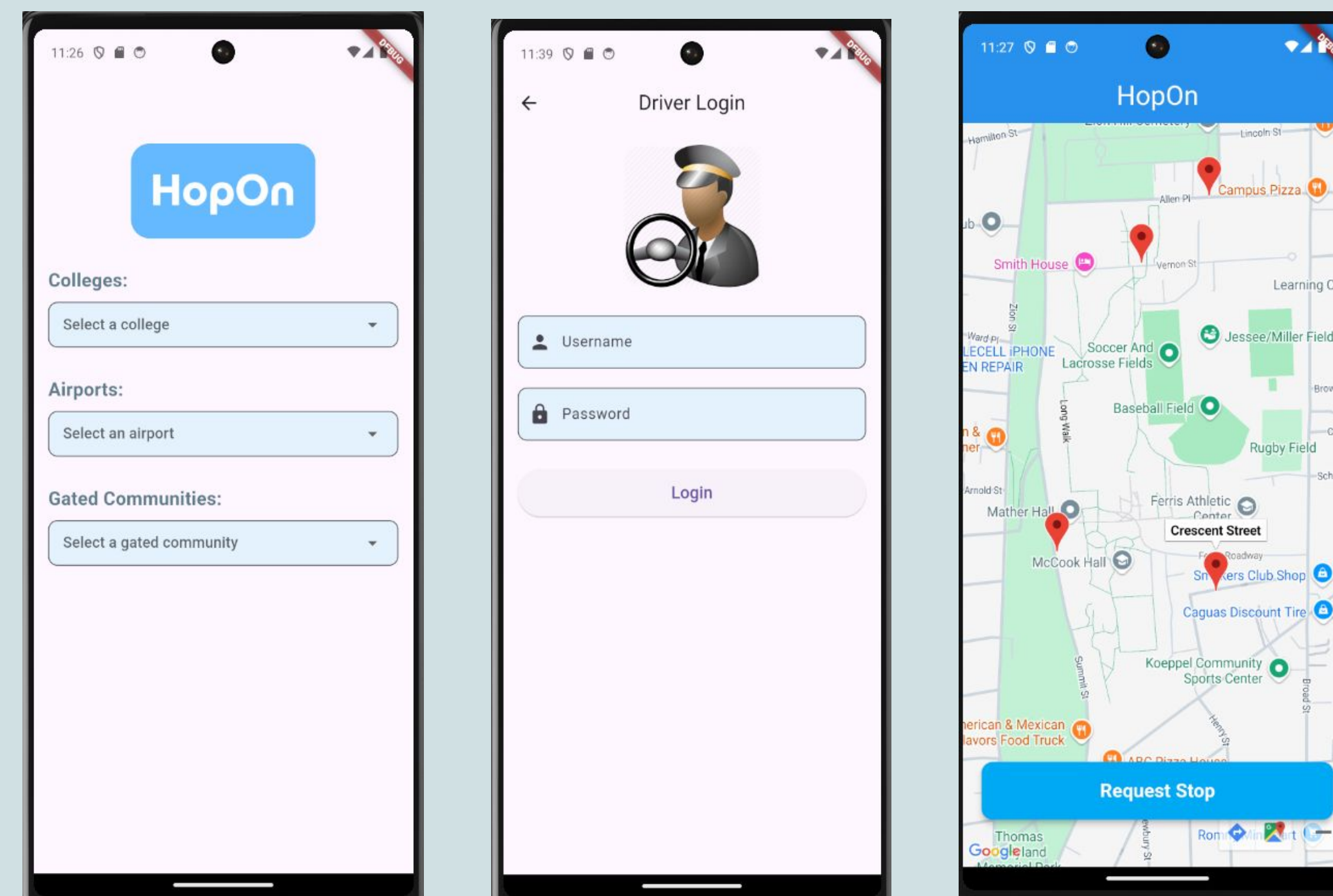
1. **30 mins/year** – extra time the average Trinity student spends guessing bus arrivals.
2. **0 visibility** – drivers can't gauge demand at upcoming stops.
3. **Safety first** – late-night waits in empty lots feel longer than they are.

**HopOn** ends the guesswork with real-time dots on a map, yours and the shuttle's.

## KEY FEATURES

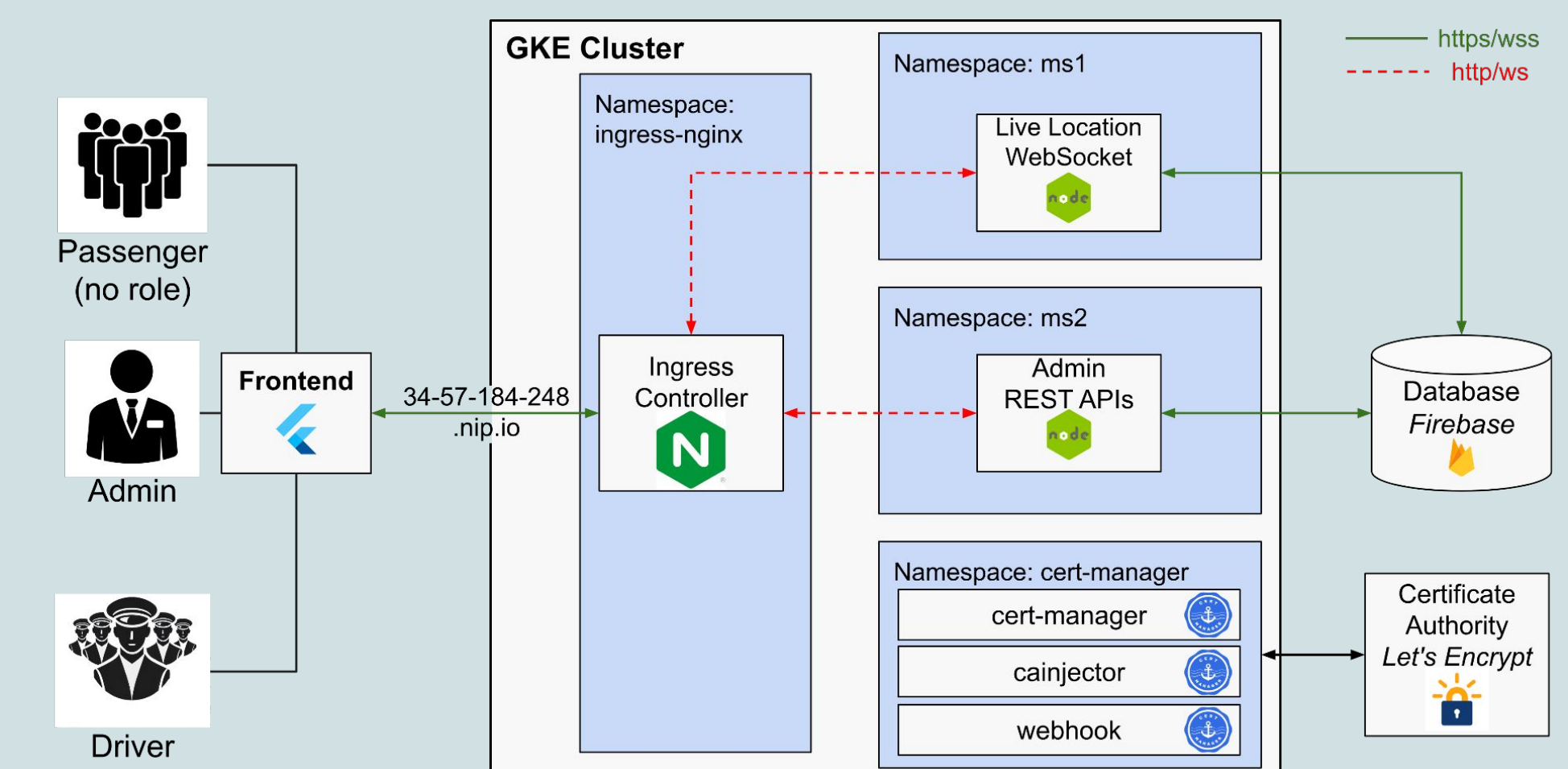
- Live Location
- Tap-to-Request Stop
- Smart ETA
- Boarding Alerts

## USER INTERFACE



## INFRASTRUCTURE

System currently deployed in a GKE cluster with a secure, scalable microservices design.



## ROADMAP

1. **Smarter ETA** – refine arrival predictions with real-time traffic and route data.
2. **AI Driver Assistant** – help students get shuttle updates, and answer questions.
3. **Fatigue Alert** – monitor driver activity and suggest rest breaks when needed.
4. **Multilingual Mode** – support multiple languages across app and notifications.

We would like to thank Professor Jonathan Johnson for his guidance during the development of this project

## TECHNOLOGIES

