



GeoBus

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Bus Squad (Android)



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Android

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problem introduction

- Hard to tell if a shuttle is coming soon or if one just passed by
- A web solution exists, but what about a mobile solution?

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goals

Initial goals:

- Shuttles updating in realtime: achieved as much as hardware allows!
- Indicate direction of travel for each bus: achieved!
- Draw bus routes if tapped: partially achieved but lacking full functionality
- “Hamburger” menu/sidebar for additional options: achieved!
- Show Metro schedule on tapping a bus stop: framework achieved!
 - Highlight upcoming times based on stop: did not achieve
- Show operating hours somewhere within app: achieved for shuttles!

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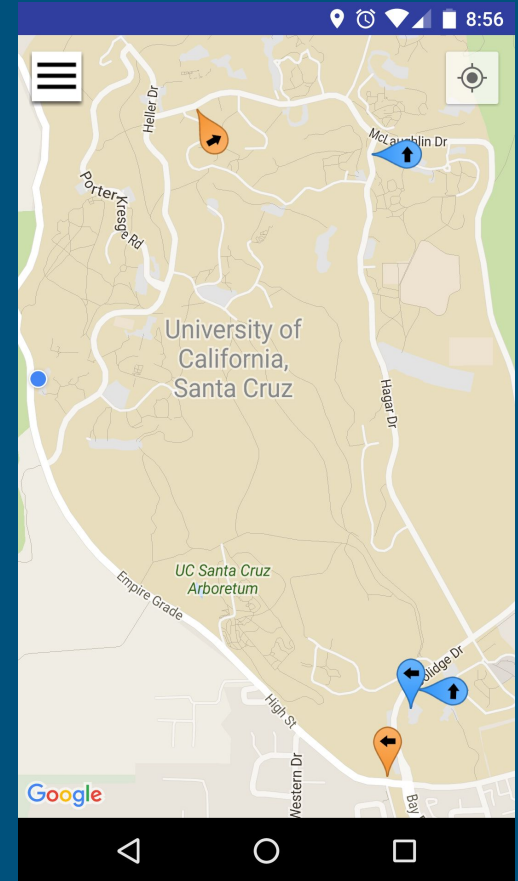
challenges

Product development:

- Translating what we wanted to have into viable code
- Android Studio issues--crash on launch, rendering issues...

Development process:

- Scrum meeting scheduling and unexpected changes
- Keeping the scrum board and burnup chart entirely up to date
- Evenly distributing task loads



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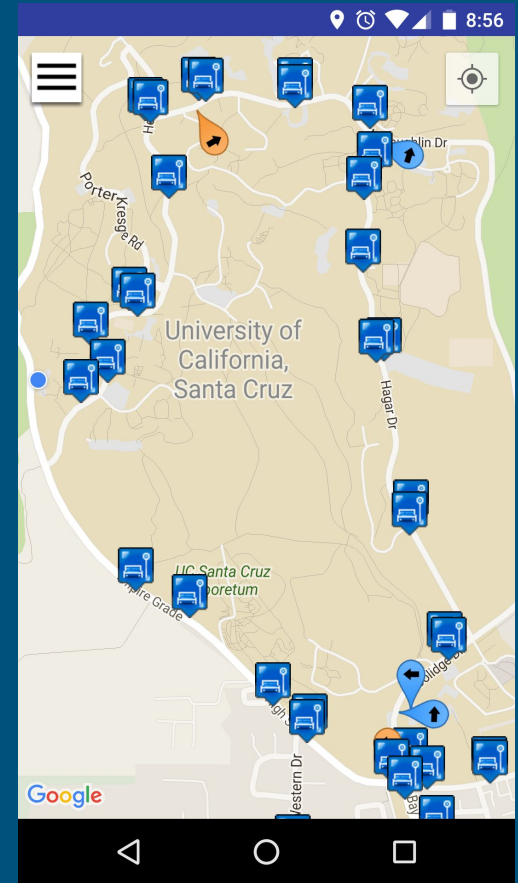
accomplishments

Product development:

- Successfully parsing Kerry Veenstra's XML file and displaying markers at buses' locations
- Getting a fragment to appear on tapping a bus stop

Development process:

- Planning processes in each sprint allowed us to tackle well-defined tasks appropriately
- Scrum meetings were good reminders of what tasks we were all working on



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used technologies & project management techniques

- Java/XML
 - JSON, MySQL and a little bit of HTML
 - Google Maps API in conjunction with Android Maps Extensions
 - GitHub for code management, of course
 - Stack Overflow
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- Scrum and agile development practices as detailed in early lectures

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things we did and didn't enjoy

We enjoyed:

- Staying up-to-date with scrum meetings; often fun
- Collaborating on a helpful project we often used ourselves
- Clean merges on GitHub

We did not enjoy:

- Finding a way to effectively prioritize the project and our other assignments
- Feeling like we scaled back too far at the start of each sprint (even though it was fine)
- Messy merges on GitHub

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lessons learned

What worked/will continue to be done:

- GitHub and its role in recovery, collaboration and maintaining integrity
- Getting advice from Kerry and his backlog of hardware expertise

What didn't work/will stop doing:

- Not putting meeting times in writing early enough
- Not integrating code on a regular basis, fork or otherwise

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Questions?

Thank you.