Beta Presentation
Patient Service Delivery Planning
The Capstone Experience

Team Spectrum Health
Charles Bean
Josh Curl
Justin Oh
Luke Stanton
James Torres

Department of Computer Science and Engineering
Michigan State University
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Project Overview

• Allows Spectrum Health to provide optimal care by predicting staff needs
• Allows patients to find the facility with the shortest estimated treatment time
• Predictions are based on
  ▪ Past data
  ▪ Weather forecasts
System Architecture

Staff UI
- HTML/CSS
- Bootstrap
- Angular.js
- D3.js

Patient UI
- HTML/CSS
- Bootstrap
- Angular.js

Google Maps

RESTful Backend Server
- .NET/ C#
- Web API

Mongo

Spectrum Health API

Weather API

Cron Job
- R.NET
The Patient Interface
The Staff Interface
The Staff Interface
What’s left to do?

• Patient UI
  ▪ Optimize wait time and recommendation calculations
  ▪ Increase webpage responsiveness with the backend API
  ▪ Minor UI integration based on Spectrum Health’s design team feedback

• Staff UI
  ▪ Refactor code to improve modularity
  ▪ Improve responsiveness of Calendar

• Backend
  ▪ Create data partition for 3-hour intervals
  ▪ Better incorporation of non-Spectrum APIs
  ▪ Divide cron job functionality into two applications