Confidence Tracker of Septa Lines (Trains and Buses)

# Problem Definition:

Septa commuters are often frustrated with irregularities in train departure and arrival times. While Septa publishes schedules for all its lines, no one really knows when a train or a bus will arrive as Septa drivers have built a reputation to either show up late or early.

# Current State

Previous Code For Philly groups have developed applications to tackle the tardiness of SEPTA lines. We summarize their solutions below as well as the differentiation factor for CT-Septa

1. Septa Next Bus: <http://septanextbus.sourceforge.net/index.php?page=demo>
   1. Mission: This project is to provide predictions for how long buses take to reach stops. The two major goals of this project are to eventually see displays up at bus stops which give a listing of the next buses to arrive and their predicted times and to provide a live bus prediction api available to any app developers who want to integrate it into their transit apps.
   2. Dev. Details: <http://septanextbus.sourceforge.net/index.php?page=tech>
   3. Status: Last project update August 2015
   4. How CT-Septa is different:
2. Septa RR On-Time Performance Report (<http://phor.net/apps/septa/>):
   1. Mission: These reports use every train's arrival time from 2009 until present to recommend schedule changes for chronically late service. Reports created by William Entriken (not affiliated with SEPTA). Also see SEPTA's less detailed official OTP reports.
   2. Dev. Details: <https://github.com/fulldecent/septa-regionalrail-otp>
   3. Status: Up-to-Date
   4. How CT-Septa is different:
3. SEPTA.mobi (<https://codeforphilly.org/projects/SEPTA-mobi> ) :
   1. Mission: A simple mobile website for finding live bus and trolley positions. A new version SEPTA.mobi v3 is in the works that integrates schedules, trip planning, and other open data feeds available from SEPTA.
   2. Dev. Details: <https://github.com/JarvusInnovations/SeptaMobi>
   3. Status: Last update February 2015
   4. How CT-Septa is different:

# Users/ Stakeholders

Our users are SEPTA riders of all ages who depend on Septa for their daily commute to work or personal functions.

Persona

|  |  |
| --- | --- |
|  | Age: 28 years old  Profession: Engineer  Residence: Somewhere in Wayne PA but works in Center City Philadelphia  Lifestyle: Just graduated from College, interviewing for different position. Does not own a car so relies on SEPTA for his daily commute. He has an important interview tomorrow and wants to know if he should wait for his usually late train, or schedule a ride with UBer. |

# Proposed Solution

We propose an application that will predict the likelihood of SEPTA lines to arrive on time, based on history, to aid the commuter in his decision to wait or find alternative means of transportation. The application will also update his likelihood prediction using live feeds on SEPTA status as made available by SEPTA.

# The team

Chuck Clift - Database Architecture

Kushal Mogili - Backend Architecture

Eunice Hameyie - Predictive Analytics

Andrew Rodebaugh - User Interface

# Data Sources:

1. Septa:
   1. Live and history: <http://www3.septa.org/hackathon/>