MAHARSH PATEL

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PROJECTS

Group Study Timer
A web timer that allows users to invite others and syncs the time between all connected users. An action on one browser is propagated to all users in group.
Flask, SocketIO, Heroku

TRAKR - Website Tracker
Allows users to track websites and receive notifications when a change in the page is detected
Django, Firebase for authentication, DynamoDB, Sendgrid, Heroku

Live Transit
Displays the live location of Edmonton transit busses and estimated arrivals at different bus stops
Flask, Edmonton Open Data APIs, Heroku

Property Searcher
Web Application that displays property information such as price, with autocompete, on a given Edmonton address
Django, Sqlite, Heroku

URL Shortener
A simple URL shortener made as a challenge against a friend in ~1 hour
Flask, MongoDB, Heroku

SMS Verification
Website that asks for phone number, sends verification code, and checks validity of code
Django, Till API for SMS notifications, Heroku

Sentiment Analysis
Web Application that asks users for a string and it displays the sentiment associated with it
Python for backend, NLTK, EC2

SPRINTR - Speed Reading
Speed Reading App using Rapid Serial Visual Presentation method
Python for backend, SQL, EC2

Restaurant POS System
Demo of Point of Sales Systems in restaurants
Java for local GUI Programming, PHP for web backend, SQL

More of my projects can be found at github.com/maharshmellow

WORK EXPERIENCE

RESEARCH ASSISTANT — **September 2017 - Present**
Department of Economics - University of Alberta
- Will work on converting the Department Chair's Classification (BCC - Basic Concepts Classification) into Linked Open Data
- Will create a search engine to enable users to query data classified by BCC and to enable new relationships to be discovered through Linked Data

METADATA ASSISTANT — **May 2017 - September 2017**
Can Link Project - University of Alberta Libraries
- Created a Django web application that Universities across Canada will use to convert their library metadata into linked data
- Successfully created a SPARQL endpoint to query Library of Congress, and University metadata
- Created a series of Python programs to convert MARC records into Linked Data using modern vocabularies and ontologies
- Experienced with MARC, Linked Data, SPARQL, RDF, Apache Jena Fuseki, Virtuoso and many other technologies

SUMMER INTERN — **Summer 2014**
Reinforcement Learning and Artificial Intelligence Lab - University of Alberta
- Programmed a controller to control an iRobot Create's motion using Python and C
- Implemented and modified existing reinforcement learning algorithms
- Successfully made a robot predict its future collisions in the test environment
- Ran periodic experiments to check progress of robot's behaviour
- Shared results of experiments with professors and graduate students of faculty

EDUCATION

UNIVERSITY OF ALBERTA — **2015 - Present**
Honours Computing Science - 3.8 GPA last year - Expected Graduation: April 2019

Courses:
- Software Engineering, Intelligent Systems, Algorithms, Computer Organization, Scientific Computing, Discrete Mathematics

Activities:
- Developer's Conference 2017
- University of Alberta Programming Contest 2016, 2017

HARRY AINLAY HIGH SCHOOL — **2012 - 2015**

Vice President of Technology - Student Council:
- Plan and run school-wide events
- Create and update Student Council website
- Canadian Student Leadership Conference 2014

Awards:
- Computing Science Award
- G.P. Nicholson Outstanding Male Citizen Award
- Distinguished Service Award
- Alexander Rutherford Scholarship
- Honours with Distinction

TALKS

"Collaborative Human-Robot Control Through Predictive Learning" — **Summer 2014**
- presented to Professors and Graduate Students in Computing Science
- talked about the algorithm and demonstrated the successes of the summer internship project