Ali Shahram Musavi

Full-Stack Developer / Software Engineer

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Technical Expertise

Frontend: JavaScript, HTML5, CSS3, Bootstrap, jQuery, React.js, Node.js

Backend: SQL (MySQL, PostgreSQL, SQLite), NoSQL (Amazon Dynamo DB, Mongo DB), Python, Java

Networking: TCP/IP, Socket Programming, Protocol Design

Frameworks/Tools: Flask, Lektor, Django, Serverless, Git, Bash

Experience

Software Engineer, Co-founder — **Easy Connect** (Richmond, IN) June 2017 - Present

- Designed a solution to automate city bus services with online payment and tickets, and led a team of four to implement a MVP of the system for the City of Richmond
- Developed Easy Connect passenger and driver mobile applications for IOS and Android, and implemented Square and Google Map APIs to improve payment accuracy and online vehicle tracking system
- Implemented RESTful API with Serverless framework using AWS Dynamo DB and AWS Lambda in the backend to enhance data storage and manipulation
- Increased ridership by 40% and generated additional $300 thousand in yearly revenue, as projected from the City

Software Developer — **Kabul University** (Kabul, Afghanistan) June 2018 - Present

- Implemented REST APIs in Node.js to manage the website's interaction with MySQL database, improving the retrieval, storage and manipulation of information
- Improved the user interface, user experience and interactivity of the platform using HTML, CSS and JavaScript and integrated Bootstrap to the existing codebase
- Played a key supporting role for the project lead in bringing positive cultural shift with the introduction of peer review, test coverage, issue tracker and CI/CD pipeline

Software Engineer Intern — **Green Tech** (Kabul, Afghanistan) May - July 2018

- Created a visualization tool using the Python Tkinter and IPython, helping engineers to measure and analyze the impact of the change in water pressure, and height for a hydropower project
- Maintained and improved connection to PostgreSQL, SQL Server and MySQL
- Implemented unit and end to end testing for several projects and worked closely with other team members to successfully deploy the code to production

Projects

RFID Based Self-Service System — ***Tech Stack: HTML, CSS, Bootstrap, PostgreSQL, Django***

- A library resource management system that allows self checkout/in and efficient inventory using RFID, developed for senior capstone project and used daily by over hundred students
- Designed user interface for administrator, enabling inventory, searching, sorting etc. of 1000 objects
- Implemented Aloha and Binary Tree based anti-collision algorithm for RFID tag identification to improve system throughput and enhance read/write accuracy

Engaged Citizens — ***Tech Stack: Flask, MongoDB, OpenStates API, AWS Sandbox***

- An application for users to subscribe for email updates on local legislative bills they care about based on selected topics
- Developed during a hackathon with two other developers

Python Chatbot — ***Tech Stack: TCP/IP, Socket Programming, Protocol Design, Tkinter***

- An easy to use chatbot using socket programming developed with one other developer during a hackathon
- Used Tkinter to design the GUI, and set up the communication over TCP

Airport Mapper — ***Tech Stack: Flask, Python Tkinter, Pandas***

- An interactive web application that visualizes connecting flights
- Designed a user-friendly GUI using Python Tkinter to get the input from the user
- Analyzed and manipulated CSV input files using Pandas to scale distance between airports

Education

B.A.: Computer Science and Economics, *Earlham College*- Richmond, IN — **Expected May 2019**