Muhammad Hamza Nasir

✉ mnasir@hawk.iit.edu
🌐 hamzanasir.com
in linkedin.com/in/mhnasir/
○ hamzanasir

Skills

PROGRAMMING LANGUAGES

JavaScript
Python
Ruby
Java
C
R

FRAMEWORKS

Node JS
Express JS
React JS + Redux/MobX
Tornado
Django
Ruby on Rails
Sails JS
Android

DATABASE SYSTEMS

PostgreSQL
MySQL
MongoDB

INTERNET OF THINGS

Arduino
Raspberry Pi
ESP8266
Helium Platform

CLOUD PLATFORMS AND VIRTUALIZATION

Docker
Amazon AWS/EC2
Heroku

Education

Illinois Institute of Technology

Bachelor of Science in Computer Engineering - May 2019
• Cumulative GPA: 3.60

Employment

Real-Time Communications (RTC) Lab — Chicago, Illinois
Software Engineering Teaching Assistant — Aug. 2018 to Current

- Mentor students in backend web frameworks such as **Sails JS**, **Express JS**, **Ruby on Rails** and frontend frameworks such as **React JS**.
- Setup and manage **Travis Continuous Integration and Deployment** for mobile and web apps.

Weight Watchers International — New York, New York
Backend Engineering Intern — May 2018 to Aug. 2018

- Worked in an Agile Software Development environment to develop and push **new API's** into production.
- Designed and implemented **end to end integration tests** for key **microservices** pushing code coverage from **50% to 70%**.
- Analyzed crowd-sourced foods and recipes using data mining algorithms such as **Hierarchical Clustering** and **DBScan** to gain insights on popular and recurring foods.

NuMat Technologies, Inc.
Software and Controls Intern — May 2017 to Aug. 2017

- Developed a full-stack web application using **Tornado**, **MongoDB, jQuery and D3** to remotely control and observe the state of a high pressure gas-test manifold.
- Fixed long-standing bugs with existing systems and **updated controller programs** to comply with most recent code standards (**PEP 8, ES6, Airbnb-Javascript**).

Projects

Indoor Location for Emergency Callers - api.iitrtclab.com

- Lead a team of 14 developers to develop a **WebRTC** Android and Web App that allows callers to triangulate their **indoor location** accurate to within **10 meters** for emergency calling.
- Technologies used are **Express JS**, **React JS** and **MySQL** for the PSAP Web App, **Android and Agora SDK** to develop the mobile caller app.

IIT Facilities Application - rtcfacilities.herokuapp.com

- Developed a full-stack web application with **Ruby on Rails** and **PostgreSQL** that uses **temperature and humidity data for floors** to create **heatmaps** on floor plans. Used by IIT's Facilities Department.

FakeAir - fakeair.herokuapp.com

- Developed a **full-stack airline booking web application** using **Node JS, Express JS and PostgreSQL** with an intuitive front-end interface.

Personal Home Automation System

- **Node JS** web server running on **Raspberry Pi** used to control lights, AC and monitor temperature, humidity and camera feed. Personalized **Google Home** integration using **Dialogflow** under development.