Maruf Ahmed

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EDUCATION

BOISE STATE UNIVERSITY
Honors College
BS in Computer Science
Expected Graduation May 2020
GPA: 3.7

FIND ME

- marufahmed.us
- linkedin.com/in/mrfahmd
- github.com/marufahmed
- public.tableau.com/profile/maruf.ahmed

COURSEWORK

Algorithms
Digital Systems
Data Structures
Microprocessors
Web Development
Database Systems
Agile Development
Discrete Mathematics
Systems Programming
Probability and Statistics
Technical Communication
Data Visualization and Analytics

SKILLS

Programming
Java • PHP • C • Python • C++

Web
HTML5 • CSS • Bootstrap • JavaScipt

Data
MYSQL • MSSQL • SSRS • SSIS
Tableau • PowerBI • XML • JSON
ETL • Data Warehouse • SharePoint

Frameworks
jQuery • Bootstrap • D3.js

Methodologies
Object Oriented Programming • Agile
Development • Version Control

EXPERIENCE

SMART INFRASTRUCTURE RESEARCH LAB | Undergraduate Research Assistant
May 2017 – Present | Boise, ID

- Worked under direct supervision of Dr. Yang Lu and Dr. Dianxian Xu for several ongoing funded projects on utilizing Artificial Intelligence to make smarter infrastructures.
- Trained a neural network model with TensorFlow based on Single Shot Multibox Detector architecture for pavement surface crack detection.
- Achieved more than 90% prediction accuracy for detecting pavement cracks.
- Designed and built a small scale autonomous vehicle platform equipped with Nvidia Jetson TX2 for data collection and real-time pavement crack detection.
- Developed an android application that communicates with molecular sensor via Bluetooth and sends collected data to cloud server for analyzation.
- Trained 12 asphalt spectrograph models with 96% average detection accuracy for asphalt quality control with SCiO molecular sensor

OFFICE OF INFORMATION TECHNOLOGY | Student IT Assistant
Dec 2016 – Jan 2018 | Boise, ID

- Regularly maintained the SCSM database by updating data and creating reports.
- Maintained the departmental website using WordPress.
- Provided technical and front desk support on PeopleSoft and Blackboard.
- Helped setting up computer systems and network peripherals.

PROJECTS

COLLEGE EXCHANGE | Web Development
Sept 2018 – Oct 2018
Created the website as a part of web development coursework. It is an open source online platform where college students can trade in their items. Created the website using PHP, HTML, CSS, SQL, jQuery, AJAX and javascript. Currently working on rewriting it in MVC and adding more features.

PORTFOLIO | Data Visualization
Oct 2018 – Present
Developed several visual analytics dashboards using both Microsoft PowerBI and Tableau for personal interest. Used M and DAX query languages for data transformation and expression calculations. Currently working to create custom visuals using D3.js and ggplot2.

AWARDS

2018	Academic	Research Experience for Undergraduates Fellowship
2017	Academic	Dean's List (Fall 2016, Spring 2017)
2016	Merit based	Brown Honors Scholarship (awarded to 11 recipients each year)
2016	Merit based	GEM Nonresident Scholarship

SOCIETIES

2018	Boise State	Artificial Intelligence Club
2016	Boise State	Creative Technology Association
2016	Boise State	Honors College Student Association
2016	National	National Society of Collegiate Scholars