

# Abhishek Shah

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## Objective

Competent, dedicated, and detail-oriented individual. Looking to gain a position where exceptional skills and academic knowledge will be leveraged.

## Education

### Youngstown State University (YSU), Graduate School

Youngstown, OH

- *Master of Science* in Computing and Information Systems, GPA: 4.00/ 4.00
- *Data Analytics Certification*

December 2022

May 2022

### Youngstown State University (YSU), College of STEM

Youngstown, OH

- *Bachelor of Science* in Computer Science
- Minor: Mathematics GPA: 3.85/ 4.0

December 2020

## Research & Thesis

### Youngstown State University – Youngstown, Ohio

January 2021 – December 2022

#### Drivers' Visual Focus Areas on Complex Road Networks in Strategic Circumstances: An Experimental Analysis

- Simulation software was created which provided real-life driving experiences and monitored the visual focus of over 20 drivers.
- The stochastic simulation was made capable of re-scaling and re-structuring the simulation according to the demands.
- C# Job System and Burst Compiler are used to distribute processing across CPU cores in the AI Traffic Controller script.
- Synthetic data on human gaze patterns were gathered to simulate human's perception of sight for training neural networks.

### Youngstown State University – Youngstown, Ohio

August 2020 – December 2020

#### Imputation of Missing Values in Time Series Dataset

- Proficient in the application of machine learning techniques for imputing missing values in time series data, including the study and implementation of 12 different algorithms using Python.
- Demonstrated ability to analyze and recover missing data from raw datasets, as evidenced by the successful application of these techniques in 7 different scenarios.
- Strong understanding of imputation techniques and their role in data preprocessing for machine learning models.

## Projects

### Face Mask Detection – Youngstown State University

- Developed a real-time face mask detection program using Keras, TensorFlow, MobileNet, and OpenCV, that raises an alarm when a human is detected without a mask.
- Implemented a convolutional neural network using MobileNet for accurate detection of face masks in real-time.
- Experience with image processing libraries like OpenCV, Keras and Tensorflow for object detection and image classification.

### Future Sales Prediction – Youngstown State University

- Implemented Gradient Boosting algorithm on time-series datasets to predict future sales trends, as part of a Kaggle competition.
- Led team in successfully completing project, including presenting results to an audience of over 20 individuals.
- Demonstrated expertise in time-series data analysis and prediction through participation in a competitive Kaggle challenge utilizing advanced machine learning techniques.

## Organizational Experience

### Snapbrillia, Inc. – Web Development Intern – Remote

April 2022 – September 2022

- Teamed in an agile-based environment and participated in daily scrum meetings to share the progress of assigned tasks.
- Wrote components for the b2c website using JavaScript, HTML, and CSS in cooperation with the design team and implemented it with the logic using the React JS framework to make it functional on the user end.
- Hunted bugs throughout the b2b/b2c website and performed bugfix during the wait time.
- Performed unit testing using Jest to make sure all code complied with quality requirements before deployment.

### Youngstown State University – Graduate Research Assistant – Youngstown, Ohio

January 2021 – December 2022

- Developed software for simulating ethical dilemmas while driving, utilizing eye-tracking technology.
- Achieved first place in Three-minute research thesis competition developed by the University of Queensland.
- Gathered expertise in software development and ethical dilemmas research through hands-on experience.

### William F. Maag, Jr. Library – Student Assistant – Youngstown, Ohio

October 2017 – December 2020

- Demonstrated excellent reliability in handling huge databases with diversified information, interacting between multiple organizations and improved organizational skills.

## Technical and Software Skills

C++, C#, Java, Python, JavaScript, R, Jest, ReactJS, NodeJS, SQL, HTML, CSS, Marie, Latex, Linux, Git, Python, NumPy, SciPy, Matplotlib, Scikit-learn, Jupyter, GitHub, BitBucket, Unity3D, Blender, Visual Code, Tableau, PowerBI, Click Up, Excel

## Training and Certifications

Data Analytics (YSU), Cybersecurity Certification (CISCO), Database Offerings, Hadoop Fundamentals, ElastiCache Service Primer, Quantum Ledger Database Service Primer, Neptune Service Primer, Redshift Service Primer (AWS)

## Publication

Shah, A. (2022). *Drivers' Visual Focus Areas on Complex Road Networks in Strategic Circumstances: An Experimental Analysis* [Master's thesis, Youngstown State University]. OhioLINK Electronic Theses and Dissertations Center. [http://rave.ohiolink.edu/etdc/view?acc\\_num=ysu1670861339531086](http://rave.ohiolink.edu/etdc/view?acc_num=ysu1670861339531086)