Ashika Verma

ashikav@mit.edu | +1 (979) 492-9820

EDUCATION

Massachusetts Institute of Technology *May 2022*
B.S. in Computer Science
GPA: 4.9/5.0

SELECT COURSEWORK

Current
Advanced Topics in A.I.
Computer and Network Security
Probability and Random Variables
Linear Algebra

Past
Software Construction
Design and Analysis of Algorithms
Computer Systems Engineering
Machine Learning
Computation Structures
Artificial Intelligence
Theory of Computation
Interconnected Embedded Systems
Web.lab

PERSONAL PROJECTS

XKCD Chrome Extension

- Developed Google Chrome plugin which shows a random XKCD comic on new tab page

SafetyThird InfoLounge

- Redesigned and maintained the information dashboard for living group using Node.js, TypeScript, and Firebase

SKILLS

Proficient: Java, Python, Javascript, Go, HTML, CSS, Unity
Familiar: C++, Unreal Engine 4, C#, Terraform, SQL, assembly
Tools: Git, Docker, Kubernetes, GCP, Node.js, React, WebPack, MongoDB, jQuery, Jenkins, RxJS

EXPERIENCE

Software Engineering Intern - WP Engine *Jun. 2020 - Aug. 2020*

- Developed a Node application builder, API server and CLI tool using Go, Docker, Kubernetes, GCP and Jenkins which provides users of Headless WordPress interactivity with a simple front-end hosting platform
- Rearchitected infrastructure using Terraform to enable services in separate tools to communicate with each other and GCP
- Participated in Scrum ceremonies and code reviews with engineers and published code to staging and production environments

Undergraduate Researcher - MIT Quest for Intelligence *Feb. 2020 - Present*

- Analyzed the robustness of machine learning algorithms on histopathology slides by comparing normal slides and slides with degradations
- Used Terraform, Azure, and GCP to orchestrate and provision the computing infrastructure required to train deep neural networks
- Trained and tested a variety of convolutional neural networks which perform image segmentation using Keras

Software Engineering Intern - Schlumberger *Jun. 2019 - Aug. 2019*

- Used custom reactive programming language to develop infrastructure for processing and visualizing ultrasonic data
- Developed application for machine learning pipeline in custom browser based operating system
- Created user interfaces for selecting waveforms for further cloud computing and data analysis using the React framework

Research Intern - Knowledge Based Systems Inc. *Jul. 2017 - Aug. 2018*

- Developed a virtual reality application that simulates satellites around Earth using Unity game engine, HTC Vive, and Oculus Rift
- Created web application that reads data from an XML file and displays the information in an SVG diagram using JavaScript, HTML, CSS, and d3 library

CLASS PROJECTS

Theremin Hero *Apr. 2019 - May 2019*

- Used C++, Python, SQLite to develop a theremin which records and plays back custom songs and allows users to play against their recorded songs and interact with their songs online
- Designed a system for piezo buzzer pitch and volume control using time of flight sensor data and potentiometers

Routify *Jan. 2019 - Feb. 2019*

- Created mobile and desktop productivity app which records tasks, habits and goals using Node.js, Express, MongoDB, JavaScript, HTML, CSS, and Semantic UI
- Placed 4th in MIT's highly competitive web.lab competition