A/Z ABHAY ZALA

UNC COMPUTER SCIENCE MAJOR

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ABOUT ME

Six plus years of web and application development experience. Many awards at hackathons and competitive events. Research Assistant at the UNC-NLP lab.

Strong programming skill in Python, Java, C#, C, JavaScript, and HTML/CSS. Experienced with Machine Learning, AWS, GCP, IBM Cloud, Docker, Unity, Node.JS, Git/GitHub, 3D modeling, and animation. Expert certified in Excel.

EDUCATION

Computer Science Major (B.S.)

UNC Chapel Hill
Class of 2023

Statistics and Analytics Minor

UNC Chapel Hill
Class of 2023

High School

Panther Creek High School
2015 — 2019

COURSEWORK

- Java Programming
- Special Topics in Computer Science
- System Fundamentals
- Data Structures
- Computer Organization
- Models of Languages and Computation
- 3 Levels of Calculus
- Discrete Mathematics

EXPERIENCE

Summer Intern 2020 (May – August)

Interned at the UNC-NLP research lab. Developed an AI model to interpret natural language instructions and carry out robotic action tasks. Model was built in Python using PyTorch and a simulation environment was built in Unity with C# and host on AWS.

Undergraduate Research Assistant 2019 – Present

Currently working at the UNC-NLP research lab. Researching new ideas and directions for Natural Language Processing (NLP) and Machine Learning. Primarily focused on integrating NLP with other fields of research such as Computer Vision and Embodiment. Two research papers are currently under review for publication.

TSA President 2018 – 2019 TSA Member 2015 – 2019

Software developer and leader at the school Technology Student Association (TSA). I have won several awards from TSA.

Webmaster 2018 - Present

Created and maintain the following websites using HTML5, CSS3, and JavaScript

- Personal website portfolio - www.purple-techs.com
- TSA webmaster - www.purple-techs.com/2019-webmasters/index.html

Game and Application Developer 2014 - Present

Developed several games and applications.

- AI for presentations that won NCSU Packhacks Hackathon 2019
- AI virtual assistant using Python, OpenCV, TensorFlow, and IBM Watson
- Developed many games in Unity with C# and from scratch in Java without the help of Unity's environment
- Developed my own Game Engine in Java capable of making 2D games with many advanced features such as mesh collisions, particle systems, and ray tracing