

# PATHAPATI VENKATA SAI SARAVAN

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## EDUCATION

### University Of Maryland Baltimore County

Master of Science in Computer Science

May 2024  
Baltimore, USA

### Vellore Institute Of Technology

Bachelor of Technology in Copmuter Science

May 2022  
Vellore, India

## SKILLS SUMMARY

- **Languages:** Python, PHP, SQL, C#, JavaScript
- **Frameworks:** Flask, TensorFlow, Keras, Django
- **Libraries:** Scikit, NLTK, SpaCy
- **Tools:** Kubernetes, Docker, GIT, MySQL, Blender, Audio Mixer,
- **Platforms:** Windows, Linux, Unity, Unreal Engine, Arduino, Raspberry, GCP, AWS
- **Soft Skills:** Leadership, Event Management, Writing, Public Speaking, Time Management

## PROJECTS

### Anonymizing Users' Behavior In Virtual World Using Differential Privacy

Jan 2023 – May 2023

University Of Maryland Baltimore County

- Implemented an array of privacy-enhancing techniques to anonymize user behavior derived from in-game data.
- Developed a comparative chart highlighting the equilibrium between privacy and usability, illustrating the effectiveness of differential privacy in addressing privacy concerns arising from targeted advertising and surveillance.

### Intelligent Play: Enhancing Gaming Experience through Reinforcement Learning

Aug 2022 – Dec 2022

University Of Maryland Baltimore County

- Developed a reinforcement learning agent that can play the 2D game.
- The agent was trained on a dataset of gameplay data, and was able to learn how to play the game.
- The agent predicts how its actions would affect the state of the environment. This information was then used to plan the agent's next actions in order to achieve its goals.

### AI-Enhanced Realism in Gaming: Crafting Dynamic Environments and NPCs

Jan 2022 – May 2022

Vellore Institute Of Technology

- Showcase of how artificially driven Non-Playable Characters and interactive environments are used in the process of making games more realistic.
- Created Character State machines, Animation Transitions, Trigger systems, and Audio mixers.
- Developed a zombie themed environment to show how non-ideal interactive NPC makes game more realistic and immersive.
- Presented in ICT4SD 2022 Internation conference by Springer.

### Human gait Recognition

Aug 2021 – Dec 2021

Vellore Institute Of Technology

- Object detection (YOLOv3) and pose estimation (HRNet) on the CASIA-B dataset
- Obtain the accuracy per probe angle excluding identical-view cases

## CERTIFICATIONS

### Mathematical Thinking in Computer Science | Coursera

Nov 2019

<https://coursera.org/share/c4cc97bedafc4085325168b5b34d4224>

### Introduction to the Internet of Things and Embedded Systems | Coursera

Jun 2020

<https://coursera.org/share/afad2e3bdef32ab80df047948f0db62>

## PUBLICATIONS

### Springer Publications/ ICT4SD 2022 International conference | Nov 2022

Artificial Intelligence in Game Programming

DOI : [https://doi.org/10.1007/978\\_981\\_19\\_5221\\_0\\_60](https://doi.org/10.1007/978_981_19_5221_0_60)

## VOLUNTEERING

### Research Volunteer In Malware Analysis Research Group | Dec 2022

University Of Maryland Baltimore County

Collaborated with Professor Charles Nicholas to gain insights on the application of machine learning in malware analysis.