

ISHAAN GUPTA

Eden Prairie, MN ▪ ishaan.msg@gmail.com ▪ (612)-203-0903
<https://ishaan-1.github.io/portfolio/>

SUMMARY

Highly motivated computer science graduate with a Bachelor's degree in Computer Science. Proficient in programming skills in languages such as Python, Java, and C++ as well as in software development methodologies and tools, like Agile and Git. Seeking opportunities to apply my knowledge and experience to contribute to cutting-edge technology developments in a dynamic and collaborative environment.

EDUCATION

Bachelor of Science in Computer Science <i>College of Science and Engineering</i> <ul style="list-style-type: none">● Major: Computer Science, Minor: Mathematics● GPA: 3.92 / 4.00.● University Honors Student; Dean's List throughout college Course Work: <ul style="list-style-type: none">● Algorithms and Data Structures● Regression & Statistical Computing● Machine Architecture and Organization● Operating Systems● Cryptology● Artificial Intelligence● Advanced Programming Principles● NLP (Natural Language Processing)● Optimization for Machine Learning	University of Minnesota, Twin Cities <i>September 2021 – December 2023</i>
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SKILLS

Programming Languages: Java, Python, C#, C, Ocaml, Julia, R, Assembly, JavaScript, C++
Technical Skills: Experience in Unity, VSCode, GitHub, Perforce, Jira, IntelliJ, Node.js, Heroku, MongoDB, Docker, Agile Methodology, React, Keras, Pytorch, OpenAI, Angular.js

EXPERIENCE

Software/Firmware Developer Intern , Seagate Technology, Shakopee, MN	<i>May 2023 – December 2023</i>
<ul style="list-style-type: none">● Responsibilities include design, development and integration of embedded code onto Seagate drives.● Interacted with customers such as Google, Microsoft, and Meta to analyze and resolve failures and performance issues during product qualifications.● Developed software and firmware tools that generate production analytics and customer drive reports, using C and Python. This tool helped reduce issue resolution time by 10%.● Used Agile/Scrum methodology and performed within a team of 10 senior firmware engineers.	
LLM and NLP Researcher , U of MN, Minneapolis, MN	<i>December 2022 – December 2023</i>
<ul style="list-style-type: none">● Working with a Ph.D. student in U of MN's NLP (Natural Language Processing) Group under the guidance of Professor Dongyeop Kang.● Research in Collaborative-NLP systems between humans and machines, and developed a full-stack web-based prototype system that collects and models eye-tracking data using JavaScript behavioral framework (jsPsych), Python, PHP, Node.js, Heroku and MongoDB.● Researched ways to allow Large Language Models, like ChatGPT, to analyze and build conclusions from graphical data using Pytorch and OpenAI API.	

PUBLICATIONS

<ul style="list-style-type: none">● Understanding graphs with Large Language Models - Which Modality to use – text, motif, or image? - Debarati Das, Ishaan Gupta, Jaideep Srivastava, and Dongyeop Kang. 2023.

PROJECTS

Reinforcement Learning DOOM AI <ul style="list-style-type: none">● Reinforcement Learning agent developed using TensorFlow, OpenAI Gym and VizDoom's API. Agent is able to reliably complete a variety of levels and game modes in DOOM 1993.● The Reinforcement Learning model employs Proximal Policy Optimizations and Computer Vision to dynamically and robustly train and beat DOOM levels.
Unity Melee Fighter Game <ul style="list-style-type: none">● Created a 2D Fighter Game. Code Development done in C# using Unity API.● Implemented fluid sprite animations, character control, enemy AI and optimized A* pathing with special combat effects (such as knockback, shield blocking, parrying, etc.)