# ISHIKA SONI

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## SKILLS

**PROGRAMMING LANGUAGES:** Java, Python, C++, C#, TypeScript, Jest, SQL, HTML/CSS
**SOFTWARE:** Git, Flask, Figma, Unity, Aseprite, Blender, Pygame, MS Office
**PLATFORMS:** Docker, Amazon Web Services, Azure, Azure DevOps, Azure Functions, Azure Cosmos DB

## TECHNICAL EXPERIENCE

**Microsoft**, *Software Engineering Intern*, Redmond, WA May 2023 - Aug. 2023

- Collaborated with Support Experience Group to enhance DfM's email functionality, pivotal for communication (80-85% of interactions), addressing more than 3 million emails monthly. (DfM is the company's largest app utilizing Dynamics 365. It is a ticket management system that provides support for Microsoft's commercial customers and 60,000+ engineers.)
- Diagnosed live site logs, addressing root causes of email-sending failures (majority stemming from 2 core issues) by refining email address formatting and access validation.
- Resolved formatting errors on server side using C#, achieving a 50% reduction, and rectified email access issues on client side using TypeScript, boosting user experience by 20%, and overall boosting SLA compliance and user experience by 70-75%.
- Cultivated engineering mindset through code readability, debugging, and time management. Conducted unit tests using Jest.
- Contributed to a fully remote, cross-time zone team; documented processes for seamless knowledge transfer.
- Systematized holistic solutions by redefining problem statements, aligning business, product, user experience, and engineering perspectives.

**Microsoft**, *Software Engineering Intern*, Redmond, WA May 2022 - Aug. 2022

- Corresponded with Core Marketing team to develop a chatbot using BEAM (Bot (and AI) Enabled Augmented Marketing) machine learning service. (BEAM focuses on using conversational intent detection to determine the likelihood that a customer is ready to purchase our products or services.)
- Engineered an Azure function app using C# for seamless message processing via service bus, ensuring smooth BEAM interaction and achieving efficient intent/context retrieval. Mapped BEAM responses to reply categories for enhanced user experience.
- Investigated response times and accuracies of BEAM, optimizing chat interactions for superior performance. Validated accuracy through precise metrics measurement.
- Deployed integrated solution to Azure, seamlessly linking chatbot UI with BEAM for intent/context extraction, resulting in effective user redirection.
- Provided to a real-time experimental project, collaborating with two interns, showcasing adaptability and teamwork in cross-functional settings.

**Major League Hacking**, *Site Reliability Engineering Fellow*, Remote June 2021 - Aug. 2021

- Assembled and managed a Python-based blog web app (Flask, PostgreSQL) deployed on AWS EC2, coordinated through Nginx reverse proxy, organized Dockerized deployment with Docker Compose, and established CI/CD via GitHub Actions.
- Collaborated cross-functionally with a large team of fellows, site reliability, and software engineers to address tasks and solutions.

## EDUCATION

**City University of New York, Hunter College** Aug. 2021 - May 2024
Bachelor of Arts in Computer Science
Relevant Courses - Applied Linear Algebra, Applied Statistics, Software Analysis and Design, Discrete Mathematics, Computer Theory & Architecture, Operating Systems, Data Base Management, Symbolic Logic

## PERSONAL PROJECTS

Meerkat Game Engine Dec. 2023

- Developed a versatile, multi-component 2D game engine using modern C++ techniques and practices, incorporating dynamic libraries such as GLFW, OpenGL, and Glad, alongside custom wrappers for third-party tools.
- Practiced event-driven programming, handling user input, multithreading, and profiling.
- Created a simple 2D game on the engine to showcase its capabilities and potential for further development.

Brute Force Path Tracer Apr. 2023

- Created a sophisticated ray tracer in C++ capable of generating intricate images featuring diverse randomized spheres with varying colors and textures.
- Employed advanced techniques such as antialiasing, gamma correction, and dielectrics to enhance image realism and quality.

## AWARDS

**Dean's List**, *Hunter College* May 2024
Achieved a GPA of 3.8 during the Spring 2024 semester.