# Siddharth Singhai

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## TECHNICAL SKILLS

Languages: C#, C++, Python, Java, JavaScript, HTML/CSS, R

Frameworks: React, Angular, Node.js

Databases: Reddis, MongoDB, Cassandra, SQL

Other tools: Unreal Engine, Unity, Photon, Git, Perforce, iMotions, Elasticsearch

#### EXPERIENCE

Unity Developer Mar. 2024 – Present

Rebecca Everlene Trust Company

Seattle, WA

- Implemented a line trace for click and drag mechanic within a given boundary
- Developed spring/ hinge joint based mechanic to push objects replicating fluid behavior
- Created a "scrapper" moving along fixed curved path using Bezier paths
- Implemented animation sequences from sprite sheets across multiple scenes

#### Lab Assistant Intern

Jun. 2022 – Dec. 2022

Immersive Media Lab, Northeastern University

Boston, MA

- Developed 2D, 3D, and VR demos for Unity and Unreal Engine, tailored for academic courses
- Integrated 3D models from third-party software into Unreal Engine and Unity for student projects
- Developed geo-tagged virtual interactions on campus for graduation week using Hoverlay
- Conducted iMotions workshops for students and faculty to support biometric data collection and analysis

## Software Engineer Reliance Jio Infocomm

Jun. 2018 - Aug. 2021

Navi Mumbai, India

• Implemented a Redis database to create, update and delete inter-network device configuration details

- Constructed an API to create and update network configurations for third-party IoT devices
- Designed a scalable HTTP 2.0 stack, with a Vert.x client, to manage up to 4 million transactions per second
- Implemented JSON encoding and decoding in Elasticsearch to format, store, and update devices nationwide
- Built an Angular user interface to facilitate user-management and deliver JSON configuration parameters to the Service Capability and Exposure Function (SCEF)

## Projects

## Frenemy Frontier | C#, Unity, Photon

Dec. 2023

- Configured and implemented Photon Engine to enable peer-to-peer multiplayer functionality for up to four concurrent users
- Implemented damage system and item pickup functionality
- Applied balance changes informed by extensive user testing and feedback

### **DEngine** | C++, Python, SDL2

Mar. 2023

- Programmed a graphics renderer using the inbuilt renderer in SDL2
- Developed a resource manager focused to minimize runtime file read and write actions
- Implemented a customizable score counter

#### Centripetal | C#, Unity

Dec. 2021

- Implemented the grapple mechanic for player movement
- Developed the main menu UI
- Designed and integrated the final level inspired by Formula 1 tracks with a focus on players achieving a flow state

## EDUCATION

#### Northeastern University

Sep. 2021 – Dec. 2023

Master of Science in Game Science and Design

Boston, MA

Motilal Nehru National Institute of Technology

Jul. 2014 – May 2018

Bachelor of Technology in Computer Science

Prayagraj, India