

# Simarjeet Singh

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## Professional Summary

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- Graduate student with a 4.0 GPA at Washington State University, pursuing a Master's in Computer Science with a focus on **Distributed Systems** and **Machine Learning**
- Proven problem solver with advanced expertise in debugging, algorithms, and databases, coupled with strong proficiency in **Java, C#** and **Python**
- Strong team player** with high contribution, backed by proven experience from internships and active participation in programming clubs

## Education

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**Washington State University**  
*Master of Science in Computer Science*  
GPA : 4.0

Pullman, WA  
Jan. 2024 – Dec.2025

**JECRC University**  
*Bachelor of Technology Computer Science and Engineering*  
GPA : 3.79

Jaipur, India  
Aug. 2019 – May 2023

## Projects

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### Media Sharing Service — C#, .NET Core, Azure Cloud Services | *C#, .NET Core, Azure*

- Built a microservice media platform with user accounts, file sharing, and upload/download features.
- Leveraged Azure Cloud Services: App Service for hosting, CosmosDB for metadata storage, and Blob Storage for media files.
- Demonstrated proficiency in cloud-native development, microservice architecture, and full-stack implementation.
- Implemented a search functionality allowing users to quickly find shared media files by filename, type, or user tags.

### Face Recognition-Based Image Separator | *Python, OpenCV, dlib, face\_recognition*

- Developed an image segregation system using **face recognition** in Python with OpenCV and dlib.
- Implemented **one-shot learning** to identify individuals with minimal data samples.
- Automated sorting of images into **individual**, **group**, and **unknown** categories based on face detection.
- Optimized image classification performance using **facial encodings** and **GPU acceleration** for faster processing.

### Personal Spotify Data Analysis | *R, Spotify Web API, SpotifyR* [\[See Project\]](#)

- Developed R scripts to analyze streaming history dataset of 20,000+ JSON entries, applying data cleaning techniques to build artist transition networks and detect communities
- Conducted in-depth analysis using metrics like degree centrality, closeness, and betweenness for exploratory data insights.
- Integrated Spotify Web API, handling large-scale personal data and complex JSON structures.
- Implemented signed network analysis to derive novel insights from music listening behavior.

### Bullet Hell Shooting Game and Level Interpreter | *Java, LibGDX* [\[See Project\]](#)

- Developed a Java/LibGDX bullet hell game with dynamic enemy waves, mid-bosses, and multi-phase final bosses
- Applied essential design patterns such as Factory, Observer, and State, ensuring a modular and extensible game architecture
- Developed a JSON-based level interpreter to allow seamless customization of enemy types, spawn patterns, and bullet behaviors
- Designed and implemented game interfaces using LibGDX's UI toolkit, enhancing user experience and aesthetics

## Experience

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### Software Development Intern

July 2022 – Dec. 2022

*Cactus Communications*

- Developed RESTful APIs using Java Spring Boot to support key features like user activity tracking and research paper ingestion
- Worked closely with the frontend team to help integrate backend APIs, contributing to a cohesive user experience
- Contributed to optimizing MongoDB queries for improved data handling and faster retrieval in large datasets.
- Supported the implementation of basic security measures to protect user data and maintain consistency across the platform.

### President

July 2021 – Jan. 2022

*CodeChef JU Chapter*

- Served as President of CodeChef JU Chapter, leading a 4-person team to organize workshops and coding competitions
- Facilitated hands-on learning sessions on competitive programming, data structures, and algorithms
- Organized and hosted multiple coding events, hackathons, and tech talks to engage the student community
- Mentored junior students, fostering a coding culture and enhancing their problem-solving skills and career readiness

## Technical Skills

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**Languages:** Java, C#, SQL, R

**Frameworks:** Spring Boot, .NET

**Developer Tools:** Git, Docker, Azure, GCP, Kubernetes

## Certifications

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[Architecting with Google Compute Engine](#)

[Google Cloud Fundamentals: Core Infrastructure](#)