# Aryan Saxena

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#### **EDUCATION**

# **Iowa State University of Science And Technology**

Ames, Iowa

Bsc. Computer Science - GPA 4.0

Graduation Date: Jan 2027

Coursework: Computing in Python, Object-Oriented Programming, Functional Programming, AI in Pytorch

# **WORK EXPERIENCE**

#### BestYouCollege - bestucollege.com

Ames, Iowa

Backend Engineer

Aug 2024 - Oct 2024

- Built and integrated Flask-based microservices to enhance modularity and scalability of web applications.
- Optimized SQL database schemas to ensure efficient data storage and retrieval
- Implemented authentication and authorization mechanisms to secure sensitive data

# Portfolio Website - aryan-saxena.com

Ames, Iowa

Full Stack Developer

Jan 2024 - Jan 2024

- Developed a professional portfolio website using Next.js, improving online visibility and personal branding by 50%
- Integrated Tailwind CSS for responsive design, enhancing the user experience, increasing visitor retention by 40%.
- Implemented **context management** using TypeScript, resulting in a 30% reduction in bug occurrences...

Masawi Chandigarh, India

Backend Developer

Jan 2021 - Jan 2022

- Co-Founded an organization that raised awareness about social discrimination through a course curriculum
- Educated 1000+ students across multiple schools
- Engineered the frontend of a responsive website using ReactJS, improving user experience by 10%
- Architected a RESTful API using Node.js and Express to improve application scalability.

#### PROJECT EXPERIENCE

Abstract-Mario Game Ames, Iowa

www.github.com/aryansaxena1210/abstract-mario

Jan 2024 - Jan 2024

- Developed an interactive game in Java which micks the workings of the game Mario by 70%
- Utilized **object-oriented principles** to create modular and reusable code, improving code maintainability by 40%.
- Implemented efficient algorithms for collision detection and player movement, reducing processing time by 30%.

Snakes x Packman Ames, Iowa

www.github.com/aryansaxena1210/snakes-x-packman

Jan 2024 - Jan 2024

- Developed an interactive game in Java, which is a cross between Snakes and Packman
- Implemented 11+ classes like Platform Element, Moving Element, Flying Element, Follower element, etc.
- Designed Complex algorithms for collision detection, player movement, game dynamics and scoring.
- Conducted thorough unit testing and debugging to ensure reliability of game mechanics by 40%

### **ChatGPT Clone - Decoder-Only Transformer**

Ames, Iowa

www.github.com/aryansaxena1210/transformer

Jan 2024 - Jan 2024

- Engineered an AI-powered Decoder-Only Transformer using **PyTorch** and **Lightning**, leveraging **LLM** techniques.
- Harnessed a 5-token vocabulary for embedding, optimizing the LLM's efficiency in small-scale artificial intelligence.
- Formulated **Positional Encoding** and **Self-Attention** from scratch, enhancing AI model precision by 20%.

# **TECHNICAL SKILLS**

Languages: Python, Java, C, HTML/CSS, Javascript, Typescript, Kotlin

**Libraries/Frameworks:** ReactJs, NextJs, NodeJs, ShadCN, Framer-Motion, Jetpack-Compose, Retrofit MongoDb, Django, Flask, Tensorflow, Numpy, Pandas, Matplotlib