

MIHIR SAHU

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EDUCATION

University of Wisconsin–Madison

Madison, WI

Bachelor of Science in Computer Science and Data Science; Certificate in Game Design

September 2022 – May 2026

- Dean's List: Fall 2023.
- Relevant Coursework: AI/ML, Data Modeling and Programming, Machine Organization, Operating Systems, Algorithms, UI/UX Development, Database Management System, Game Design, Statistics, Digital Imaging Studio.

EXPERIENCE

Capital One

Madison, WI

Software Engineer Intern (Capstone)

February 2026 – May 2026

- Collaborated on a team of 5 with 3 mentors to architect a serverless AWS fraud system using Git, Jira, and Scrum with weekly sprints, which reduced manual review time by 30%.
- Used Design Thinking to prototype an asynchronous pipeline with 0–1 model scoring, increasing throughput and enabling real-time decisions.
- Built a Twilio SMS loop and used Google Design Sprints to prototype and test our riskiest assumptions.

The UW Game Lab

Madison, WI

Research Assistant

January 2026 – May 2026

- Prototype short-form analog and digital games modeling recommendation algorithms, echo chambers, and algorithmic bias.
- Run weekly playtests and design iterations within a 5-person interdisciplinary research team on algorithm literacy systems.
- Contribute toward research demos and submissions for IDC and Play Make Learn conferences.

Sprocket Lab

Madison, WI

Research Assistant | AI Department

September 2025 – May 2026

- Built a multi-level RL environment in IsaacGym for quadcopter navigation and obstacle avoidance.
- Integrated VLM-based control, distilled programs, and weak supervision pipelines for hierarchical policy learning.
- Trained and evaluated PPO agents across 100+ randomized episodes using depth-camera input.
- Automated multi-trial experiments and performance visualization (rewards, crashes, successes) to analyze agent behavior.

AIMitari MedTech Pte Ltd

Singapore

Software Engineer Intern

June 2025 – February 2026

- Developed an AI-assisted ultrasound guidance system that learns clinician-defined waypoints and scan trajectories, enabling non-experts to reproduce expert scans with high spatial fidelity.
- Built a real-time single-camera perception pipeline (OpenCV, MediaPipe, OCR) performing landmark detection, point verification, and adaptive navigation at interactive frame rates.
- Reduced scan inconsistency and operator error by algorithmically constraining probe motion, improving repeatability.

AIRO Digital Labs

Gurgaon, India

Software Engineer Intern

May 2024 – July 2024

- Built a full-stack Generative AI platform (Node.js, React, LLMs) to auto-generate sales pitches, PPT decks, and short videos, reducing manual pitch preparation time by 50%.
- Deployed the application on AWS EC2 + S3, supporting multi-user access with scalable storage and high availability.
- Developed RAG-based chatbots using LangChain and Copilot Studio to improve response relevance and automate queries.

PROJECTS

GameGold — *Next.js 14, FastAPI, Claude API, ReactFlow, MongoDB* | github.com/MihirSahu14/GameGold

Present

- Building a 6-phase AI-powered game design platform; pnpm monorepo on Vercel + Railway.
- Engineered 8 prompt-specialized API calls to generate full Game Design Documents with TipTap section editing.
- Built a ReactFlow node graph for modeling game entities with a balance analyzer detecting exploits and dominant strategies.
- Designed a stage-gated UI enforcing a structured workflow across all phases.

CryptoDash — *React, FastAPI, CoinGecko API* | cryptodash-eta.vercel.app

Present

- Built a full-stack web app to track cryptocurrency portfolios with real-time market data, historical price charts, and news.
- Integrated CoinGecko API to fetch prices, market caps, volume, and multi-timeframe charts (1D–ALL) using Chart.js.
- Implemented Ethereum wallet tracking to display asset breakdowns, current value, and profit/loss analytics.
- Designed smooth animated UI with React Router and Framer Motion for an interactive user experience.

Veil — *Unity, C#, 2D Horror–Game* | aeryno.itch.io/veil

2025

- Designed and built a 2D horror game, implementing movement, enemy AI, item systems, and progression logic.
- Architected modular gameplay systems, enabling rapid addition of new mechanics and levels.
- Led UI/UX design including menus, feedback indicators, visual effects, and win/lose states.
- Built scalable, modular game architecture to support new mechanics, interactions, and content as the project grew.

TECHNICAL SKILLS

Languages: C/C++, C#, Java, Python, JavaScript, TypeScript, SQL, HTML/CSS, Bash, R, Assembly

Frameworks & Libraries: React, Next.js, Django, FastAPI, Flask, JUnit, PyTorch, Spring Boot, Pandas, OpenCV, NumPy

Technologies & Tools: Git, Docker, AWS, Google Cloud Platform, Jira, DevOps, Agile, Scrum, MongoDB, MySQL, REST APIs, OpenAI API, Adobe Creative Tools, Kafka, Blockchain, Web3, Unity, GameMaker, Godot, Rhino 3D, Adobe Creative Suite