Mahanyas Baira

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Education

Colorado State University — Fort Collins, CO
Bachelor of Science in Computer Science — *Aug. 2024 – Dec. 2027*

DRS International School — Hyderabad, India
International Baccalaureate Diploma Programme (IBDP) — *Aug. 2022 – May 2024*

Experience

ML Research Assistant — Sep. 2025 – Present
Computer Science Department, CSU — *Fort Collins, CO*

- Identified gaps in collaboration classification across 11,000+ messages from 24 teams
- Constructed a Python ML pipeline using network analysis on AWS and CSU's Falcon HPC Cluster, improving F1 from 0.70 to 0.75+
- Improved collaboration-type classification accuracy by 20%, directly shaping CS curriculum decisions

Systems Software Engineer — Mar. 2025 – Present
Colorado State University — *Fort Collins, CO*

- Investigated provisioning bottlenecks across 600+ Windows endpoints in a large university IT environment
- Engineered Python and PowerShell tooling to automate AD management, SCCM imaging, and GPO enforcement
- Reduced provisioning time by 40% and compliance overhead by 30% across all managed endpoints

Software Engineer Intern, Cybersecurity Team — May 2024 – May 2025
Division of IT, CSU — *Fort Collins, CO*

- Engineered internal security automation tools in Python, Flask, and SQL to process and triage alerts in real-time
- Reduced manual response time by 60%, supporting 10,000+ devices across CSU's campus infrastructure
- Developed backend scripts automating vulnerability scanning across 5,000+ endpoints; cut reporting time by 300%

AI/ML Research Intern — Jun. 2023 – Oct. 2023
International Research Program | *Letter of Rec — Mentor: Dr. Aleksandar Jevremovic, Harvard* — *Remote*

- Investigated performance bottlenecks in deep learning workflows on distributed HPC cluster environments
- Developed 3+ neural network models in TensorFlow and PyTorch with parallelized training pipelines
- Reduced model training time by 25%; produced 5+ technical reports and a 15-page research paper

Technical Projects and Achievements

NeuroSync | *Next.js, TypeScript, Supabase, Gemini 2.5, Cloudflare R2, Clerk* | GitHub — 2026 – Present

- Constructed a 3-layer multimodal AI pipeline ingesting PDFs, audio, and video to synthesize research
- Programmed Gemini 2.5 agents for timeline extraction, contradiction detection, and cited report generation

HybridHerd | *React Native, Node.js, GraphQL, scikit-learn, PostgreSQL* | 1st Place — Hack4Health 2026 — Apr. 2026

- Assembled cross-platform livestock health app (React + React Native) with Node.js/GraphQL and FastAPI
- Trained ML classifier on real-time IoT wearable telemetry for early BRD livestock disease detection

AgriVerse VR Simulator | *Unity, C#, MRTK, XR Interaction Toolkit* | 1st Place — CSU Engineering Challenge — Dec. 2025

- Led 3-person team to ship 10+ MR/VR agricultural simulations in Unity and C# using Agile and Git

Technical Skills

Programming Languages: JavaScript, TypeScript, HTML/CSS, Python, Java, C/C++, SQL
Frameworks: React, Next.js, Node.js, Express.js, Django, Flask, FastAPI, JUnit, Tailwind CSS
Databases: MySQL, PostgreSQL, MongoDB
Developer Tools: Linux, Git, GitHub, Docker, VS Code, IntelliJ, PyCharm, Eclipse, Postman, JIRA, Figma
Libraries: pandas, NumPy, Matplotlib, scikit-learn, TensorFlow, PyTorch, Keras

Certifications

Microsoft Azure AI Essentials | Google Cloud AI | LambdaTest Test Automation | Atlassian ITSM