Devendra Sai Mupparaju

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SUMMARY

Master of Science in Computer Science (MSCS) Graduate and Software Engineer specializing in backend architecture, cloud automation, and scalable full-stack systems. Expertise in Python, C++, and AWS, with a focus on optimizing distributed computing and secure AI infrastructure. Proven track record of delivering high-efficiency solutions for real-time web environments and interactive applications.

SKILLS

Languages	Python, C++, TypeScript, JavaScript, SQL, Linux/Bash
Cloud & Ops	AWS (EC2, S3, IAM), **Vercel**, Docker, Git, CI/CD, Intel SGX, Slurm
Machine Learning	PyTorch, TensorFlow, Scikit-learn, Pandas, NumPy, **Google Gemini API**, NLP
Databases	PostgreSQL, Supabase, Redis, MySQL
Web & Tools	React, **Next.js**, Node.js, Phaser, Flask, Tailwind CSS, Vite, Power BI
Key Concepts	RESTful APIs, Distributed Systems, Data Structures, System Security, Agile

EXPERIENCE

Portfolio "Digital Twin" System — *Remote*
Project: Interactive AI Recruiter Screen — *January 2026 – Present*

– Architected an interactive **"Digital Twin" AI chatbot** integrated into a personal portfolio, serving as a 24/7 recruiter screen capable.
– Implemented **Real-Time Analytics & Structured Logging** to track visitor engagement and query patterns, providing data-driven insights for ongoing persona refinement.
– Optimized system performance with **Next.js Server Actions**, deploying via **Vercel** to ensure low-latency global edge availability.

Full Stack Game Engineer (Bounce Streak) — *Remote*
Project: Reddit Devvit Community Game — *February 2026 – Present*

– Developed a high-performance 2D arcade physics engine using **Phaser** and the **Reddit Devvit SDK**, optimizing collision detection algorithms to maintain a consistent 60 FPS on mobile browsers.
– Architected a deterministic daily challenge system via seeded randomization, supporting 3,000+ concurrent users with synchronized global leaderboards.

Student Developer - AI/ML Engineer — *Ames, IA*
Iowa State University (Capstone) — *August 2025 – December 2025*

– Implemented "Activation Steering" in **PyTorch** for low-cost model patching, reducing error rates in code-fix generation by 15% without requiring full retraining.
– Scaled model evaluation pipelines on **Slurm** clusters, eliminating computation bottlenecks to achieve a 20% increase in repair accuracy during large-scale stress tests.

Full Stack Engineer (Hop-bee Project) — *Remote*
Project: The Social Hobby Hive — *January 2026 – Present*

– Designed a "Time Capsule" feature using **Supabase** and **React**, facilitating real-time video updates and secure scheduled releases for a growing user base.
– Developed dynamic **TypeScript** dashboards to visualize complex hobby progress, improving user engagement metrics through intuitive data representation.

Security Research Engineer — *Ames, IA*
Project: Secure AI Training — *August 2024 – December 2024*

– Hardened AI training loops by leveraging **Intel SGX** enclaves, successfully isolating sensitive computations from OS-level vulnerabilities and potential memory leaks.
– Integrated **C++ encryption protocols** to secure training data, maintaining 100% data privacy during simulated system compromise scenarios.

Cloud Engineering Intern — *Remote*
APSSDC – AWS Trainee — *June 2021 – July 2021*

– Developed Infrastructure-as-Code (IaC) templates for **AWS**, automating server linking and reducing manual environment setup time by 40%.
– Enforced strict security compliance by implementing granular **IAM policies**, significantly reducing the risk of unauthorized database access.

CERTIFICATIONS

IBM Certified Hadoop Foundations Developer	*Issued: May 2022*
Cognitive Class Introduction to Cloud	*Issued: May 2022*
Oracle Cloud Infrastructure Foundations 2021 Certified Associate	*Issued: Feb 2022*
HackerRank Python Certificate	*Issued: Aug 2021*

EDUCATION

Master of Science in Computer Science, Iowa State University, Ames, IA *Dec 2025*
GPA: 3.5/4.0