

# Devendra Sai Mupparaju

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## SUMMARY

MSCS Graduate and Software Engineer specializing in backend architecture, cloud automation, and full-stack systems. Experienced in building scalable applications using 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.

## SKILLS

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

## EXPERIENCE

### Full Stack Game Engineer (Bounce Streak)

Remote

*Project: Reddit Devvit Community Game*

February 2026 – Present

- Engineered a 2D arcade physics engine using Phaser and Reddit Devvit SDK; optimized 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 full retraining.
- Scaled model evaluation on Slurm clusters; eliminated 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

- Architected 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, 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, 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