Revanth Gundala

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Experience

Microsoft Oct 2025 – Present
Software Engineer *Redmond, WA*

- Accelerated Azure DevOps CI/CD pipelines by parallelizing test execution and optimizing dependency caching, reducing average build time from 2 hours to 75 minutes (37.5% faster).
- Developed a multi-tenant Role-Based Access Control (RBAC) system in with dynamic policy configuration, supporting flexible permission management across multiple deployment environments and 10+ customer scenarios.
- Enhanced .NET Aspire local debugging capabilities to enable isolated microservice debugging with IIS Express, reducing debug setup time from 25-30 minutes to under 5 minutes for 12+ team members.

DigiClips Media Jan 2025 – April 2025
Software Engineer Intern *Remote*

- Implemented real-time webstream data capture using C and FFmpeg, processing over 10GB of audio and video data per week with minimal latency as a part of an academic-industry partnership.
- Architected and managed a MySQL database to securely store and manage data entries, utilizing optimized SQL queries to reduce data retrieval times by 20%.
- Integrated Docker containers to transcribe speech and video-to-text from web streams, achieving 95% transcription accuracy for diverse audio inputs, enhancing data analysis capabilities.

Wells Fargo June 2024 – Aug 2024
Software Engineering Intern *Chandler, AZ*

- Developed and validated a full-stack ATM locator service using Java, Spring Boot and GraphQL, drastically reducing the number of queries compared to existing REST endpoints.
- Enhanced database performance by implementing geospatial indexing in MongoDB, reducing ATM search latency by 60% and optimizing location-based queries.
- Implemented comprehensive testing suite using JUnit and Cypress, achieving 95% test coverage and identifying 12 critical edge cases in the API implementation.

Education

Arizona State University GPA: 3.93
B.S. Computer Science, Minor in Business, Barrett Honors College *May 2025*

Projects

Diffusion Policy for Robotic Manipulation – Github – *PyTorch, Robosuite, Huggingface, Modal* Jan 2026

- Implemented a Diffusion Transformer (DiT) architecture for visuomotor policy learning, adapting the Diffusion Policy framework for robotic manipulation tasks in robosuite; achieved 100% success rate on PickPlaceCan and 70-75% on Lift and Square tasks.
- Designed a 16-layer transformer with 512 hidden dimensions, 8 attention heads, and cross-attention conditioning on multi-frame observations (4-frame history); used DDPM with cosine noise schedule over 100 diffusion steps to predict 16-step action horizons.
- Built end-to-end training and evaluation pipeline using robomimic demonstration data, with support for Modal cloud GPU training; evaluated across 50+ episodes per task with video recording and metrics logging.

Game Engine Simulator – Github | Article – *PyTorch, Huggingface, Azure, MLFlow, Gradio* May 2025

- Implemented a research paper that generates frames dynamically to simulate DOOM, creating a proof-of-concept for a Generative Game Engine using Stable Diffusion.
- Engineered the diffusion model, created an agent with reinforcement learning to generate 10k frame-action-pairs, and implemented a full training loop in PyTorch reducing inference drift by 20%.
- Managed the end-to-end MLOps workflow by containerizing the model with Docker, deploying on Microsoft Azure, and created a full-stack application with Gradio for real-time inference and demonstration.

Skills

Languages: Python, Typescript, Java, C/C++, SQL
Frameworks/Tools: PyTorch, React, Node.js, Spring Boot, AWS, Azure, GCP, Docker
Coursework: Artificial Intelligence, Machine Learning, Data Structures and Algorithms, Operating Systems, Compiler Design, Database Management, Quantum Computing