Meetkumar Saspara

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EDUCATION

University of North Texas   **Aug 2024 - May 2027**
Bachelor's of Science, Computer Science   *Denton, Texas, United States*
  • **GPA:** 3.6/4.0

Stony Brook University   **Aug 2023 - Jul 2024**
Bachelor of Science, Computer Science   *Stony Brook, New York, United States*

EXPERIENCE

Yudiz Solutions   **May 2025 - Aug 2025**
AI/ML Intern   *Ahmedabad, India*
  • Developed a real-time object detection system using YOLO architecture and PyTorch, achieving 89% detection accuracy at 30 FPS processing speed for pedestrian safety applications
  • Optimized model inference performance using CUDA for GPU acceleration, reducing latency by implementing efficient data pipelines and model quantization techniques for real-time deployment
  • Engineered computer vision preprocessing workflows with OpenCV to handle diverse lighting conditions and camera angles, improving model robustness across different environmental scenarios
  • Collaborated with cross-functional teams to integrate the object detection model into existing safety systems, implementing monitoring and logging infrastructure for production deployment
  • Technologies used: Python, PyTorch, YOLO, OpenCV, CUDA, Docker, Git, NumPy

PROJECTS

SwifDock
  • Developed a native macOS container runtime using Swift to provide lightweight containerization without Docker Desktop dependency
  • Implemented container lifecycle management including creation, execution, and termination with native macOS process isolation
  • Designed SwiftUI-based interface for container management with real-time monitoring and resource usage visualization
  • Integrated with macOS security frameworks for sandbox isolation and leveraged native APIs for optimized performance

JWKS Server
CSCE 3550 - Computer Security Project at UNT
  • Engineered a Python-based JWKS (JSON Web Key Server) using FastAPI implementing industry-standard JWT authentication and cryptographic key rotation
  • Implemented AES-256-CBC encryption for private key storage with secure database integration (SQLite)
  • Designed RESTful endpoints for public key distribution, user registration with Argon2 password hashing, and authentication request logging
  • Implemented rate limiting (10 req/sec) and comprehensive test coverage achieving 97% code coverage

PolymorphicCodeVault
CSE1325 - 11 Comprehensive OOP Projects
  • Completed 11 progressive OOP projects spanning Java and C++ with 10,000+ lines of code and 102 commits, demonstrating mastery of encapsulation, inheritance, polymorphism, and abstraction
  • Implemented Enigma machine simulation (WWII cryptography) using factory design pattern with anonymous inner classes
  • Designed ANSI terminal color/font system in C++ with abstract base classes, pure virtual functions, and comprehensive operator overloading

TECHNICAL SKILLS

  • **Languages**: Python, Javascript, Java, C/C++, HTML/CSS, Swift, SQL
  • **Frameworks**: ReactJS, NodeJS, Flask, SwiftUI, Material UI, FastAPI, RESTful APIs
  • **AI/ML Libraries**: PyTorch, TensorFlow, YOLO, scikit-learn, pandas, NumPy, OpenCV, CUDA
  • **Testing/DevOps**: GitHub Actions, CI/CD Pipelines, Postman, Docker, Podman, Unit Testing, Kubernetes
  • **Developer Tools**: VS Code, Visual Studio, Git, Github, AWS, Linux, JIRA, PowerShell, UNIX
  • **Database**: SQL, MySQL, MongoDB, PostgreSQL, AWS S3