Matt Goldberg

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EDUCATION

University of California, San Diego   Expected June 2026
B.S. Computer Engineering   3.7 GPA
- Warren College Student Council, Judicial Board Chair

WORK EXPERIENCE

Release Engineer Intern, Cubic Transportation Systems   June 2024 - October 2025
- Migrated Azure CI/CD pipeline from MSDCRM v8 to v9, resolving compatibility issues and preventing deployment failures during production transition.
- Integrated automated code coverage into Jenkins pipelines, introducing measurable quality gates into CI and increasing test visibility across the team.
- Automated sprint performance reporting with Python (matplotlib and pandas), reducing manual reporting time and increasing visibility into velocity and defect trends.
- Identified configuration drift across Oracle SQL environments by writing targeted queries, preventing inconsistent production deployments.

Computer Support Technician, UC San Diego ITS   February 2024 - June 2024
- Diagnosed and resolved hardware and software failures across campus devices, minimizing downtime for students and faculty.
- Supported and maintained 3,000+ campus machines, ensuring system uptime and security compliance across academic departments.

PROJECTS

Domino Tile Counter
- Engineered and trained a convolutional neural network in PyTorch with regularization and normalization layers, achieving 99%+ classification accuracy.
- Built and labeled a 3,000+ image dataset across diverse environmental conditions to enhance generalized performance.

Developer Journal Website
- Led a 10-person engineering team using Agile methodologies, coordinating sprint planning and retrospectives to deliver iterative feature releases.
- Designed and deployed a GitHub Actions CI/CD pipeline with Puppeteer-based end-to-end testing to prevent UI regressions before production.
- Implemented Progressive Web App functionality to support offline use and improve performance.

3D Scene Renderer
- Developed a 3D rendering engine in C++ using OpenGL, implementing core graphics pipeline stages including model-view-projection transformations.
- Implemented near-plane clipping and perspective-correct depth interpolation.
- Rendered indexed triangle meshes with custom scene graph traversal to support hierarchical object transformations.

HTTP Server
- Built an HTTP/1.1-compliant server in Python using raw TCP sockets, implementing manual request parsing and response serialization.
- Implemented persistent connections and proper connection lifecycle management, including graceful shutdown handling.
- Parsed HTTP headers and request bodies to correctly serve static content over TCP/IP.

SKILLS

- **Languages:** Python, C++, C, Javascript
- **Libraries & Frameworks:** PyTorch, Matplotlib, Pandas, OpenGL, SFML
- **Tools:** Git, Bash, Docker, Jenkins, CMake, Azure DevOps, Jira, Bitbucket, Confluence