TYLER GUEST

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SUMMARY

Emerging Software Engineer with over 8 years of professional experience in production operations and workflow management. Currently pursuing a B.S. in Computer Science with a focus on Embedded Systems, C/C++ development, and System Architecture. Eager to leverage a strong background in quality control and technical problem-solving to contribute to the development and testing of complex hardware systems.

EDUCATION

University of Michigan - Flint | B.S. Computer Science (GPA: 3.89)   June 2023 - Dec 2027
• Relevant Coursework: Object-Oriented Programming, Data Structures, Algorithm Analysis, Computer Architecture,
  Operating Systems, Discrete Structures, Database Design

TECHNICAL PROJECTS

Memory Manager | C, Linux, Make | [source code]   Sep 2025 - Present
• Developed a custom memory management system in C with strict 8-byte alignment and overflow protection mechanisms.
• Built a comprehensive test suite covering edge cases and boundary checks, using Make for systematic debugging and error
  verification.
• Implemented data tracking features to monitor heap usage statistics, ensuring the system performed within defined resource limits.

Service & Inventory Database | SQL, PL/SQL | [source code]   Sep 2025 - Dec 2025
• Designed a relational database to track the full lifecycle of production jobs (Tickets -> Estimates -> Invoices), ensuring end-to-end
  traceability of parts and labor.
• Coded complex PL/SQL triggers to automatically deduct inventory and recalculate taxes upon sale, eliminating the risk of manual
  data entry errors.
• Implemented strict constraints to enforce data integrity, ensuring reliable reporting for stock levels and revenue.

EXPERIENCE

We Can Do It Graphics   **Flint, MI**
Lead Graphic Designer   May 2015 - Jan 2023
• Led a team of 5 in a high-volume production environment, implementing process improvements that increased throughput while
  reducing material waste.
• Performed final visual and dimensional inspections on production units, strictly adhering to client specifications.
• Managed the daily operation, calibration, and maintenance of wide-format industrial printing hardware to ensure consistent output
  quality.
• Utilized Adobe Creative Suite (Illustrator, Photoshop) to configure and validate vector files, verifying dimensional tolerances and
  file integrity prior to manufacturing.
• Maintained detailed production logs, inventory records, and order specifications to ensure full job tracking and accountability.

SKILLS

• Languages: C, C++, SQL, Python
• Software: Ubuntu 24.04, VS Code, Git, Excel, Make, Valgrind, VMM