

Tian Jun Teoh

Ames, IA 50014

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Summary

Computer Engineering student (GPA 3.77) with experience in RISC-V processor design, embedded systems, and AI-integrated cloud applications. Proven leadership as a Teaching Assistant for Digital Logic. Seeking engineering internship opportunities in embedded systems, hardware-software integration.

Skills

- **Programming:** Java, C, Verilog, VHDL
- **Software & Tools:** Intel Quartus Prime, QuestaSim, Android Studio, Firebase, Git, Linux
- **Hardware:** Digital logic design, datapath architecture, pipelined processor design, FPGA
- **Languages:** English, Mandarin, Malay

Experience

CPRE 381: RISC-V Processor Design – Ames, IA 08/2025 – 12/2025

- Implemented multi-stage pipelined RISC-V processor with instruction decoding and control unit design
- Implemented forwarding and hazard detection logic to resolve pipeline conflicts
- Analyzed performance tradeoffs between pipeline depth and hardware complexity
- Debugged control hazards and data hazards to ensure correct instruction execution

CPRE 388: AI-Integrated Puzzle Game – Ames, IA 08/2025 – 12/2025

- Developed Kotlin-based puzzle application with Firebase cloud backend
- Implemented AI-based puzzle generation algorithms to dynamically create game challenges
- Integrated real-time database synchronization for persistent game state management
- Designed modular application architecture for maintainability and scalability

Teaching Assistant – CPRE 281: Digital Logic – Ames, IA 08/2025 – Present

- Led weekly lab sessions, exam review sessions and supported 100+ students in digital logic design
- Designed structured explanations to simplify complex digital logic concepts
- Assisted students with circuit analysis, FSM design, and hardware debugging
- Graded coursework while maintaining academic integrity standards

Sales & Store Manager 09/2022 – 09/2023

Millennium Revenue Sdn. Bhd. – Malaysia

- Achieved full return on investment within first year of store launch
- Managed daily operations, trained and hired 20+ staff, and optimized sales strategies
- Implemented a cost control and order planning system, reducing procurement costs

Education

Iowa State University – Ames, IA Expected 12/2026

Bachelor of Science in Computer Engineering (GPA: 3.77/4.00)

Sunway University – Malaysia 01/2022 – 12/2023

Bachelor of Science in Computer Science (GPA: 3.60/4.00)

Accomplishments & Volunteer

Dean's List Iowa State University Fall 2025

Dean's List Sunway University May 2023

Homeland dog shelter volunteer, assisted with animal care and shelter operations. 2022-2023

Tzu Chi Recycling community volunteer, participated in community recycling programs. 2022-2023