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Hiring Manager  
TP-Link Systems Inc.  
10 Mauchly, Irvine, CA 92618

08 October, 2025

Dear Hiring Manager,

I build software that works—fast, reliable, and built to solve real problems. That’s why I’m excited to apply for the **Embedded Software Engineer** position at TP-Link Systems Inc.

I’m a Computer Science student at Chapman University with a focus on systems programming and game development. I’ll graduate in Fall 2025 with a 3.96 GPA, seven Provost’s List appearances, and a four-year Dean’s Scholarship. My technical foundation includes strong proficiency in **C, C++, C#, Java, Rust, and Python**, and I’ve developed software across platforms from embedded systems to full-scale desktop applications.

Through my coursework and independent projects, I’ve worked close to the metal, writing real-time systems in C using **SDL3** and low-level graphics APIs, managing memory manually, and debugging performance-critical applications. In my internship with Chapman’s Residence Life department, I built **C2**, a scalable GUI application that automated multi-step administrative processes using Python and Selenium, cutting significant workflows down to minutes. This experience taught me how to design, test, and maintain reliable software that interacts with external systems—a skill directly applicable to TP-Link’s embedded platforms.

I’m passionate about developing efficient, well-tested code and have a strong grasp of version control (**Git, Docker**), concurrency, and cross-platform builds. My projects include:

- A **C-based roguelite engine** written entirely from scratch, emphasizing performance, memory management, and responsive I/O.
- My own **compiled programming language**, built from the ground up with a custom parser and code generator.
- A **2D game** developed in Unity and C#, selected as a 2025 IEEE GameSig Showcase semi-finalist.

What excites me most about TP-Link is your commitment to **innovation and global impact**. I want to help build and optimize the software behind those devices, contributing to the next generation of reliable, real-world embedded systems. My background in C/C++, debugging, and performance optimization pairs well with your emphasis on reliability, networking, and efficient design.

I would be thrilled to bring my curiosity and hands-on experience to TP-Link, and I would be excited to discuss how I can contribute from day one.

Sincerely,

**Blaise A. Rettig**