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Hiring Manager Name
Company Name
Company Address
City, State ZIP Code

Dear [Hiring Manager Name],

I am excited to apply for the [Position Name] position at [Company Name]. As a Master's student in Computer Science at Case Western Reserve University with experience in full-stack development, embedded systems, and IoT solutions, I am eager to contribute my technical skills and problem-solving abilities to your team. My combination of hands-on engineering experience and collaborative project leadership aligns well with your requirements for [mention something specific from job description].

Why I'm a Strong Fit:

- **Full-Stack Development:** Created a personal blog using Hugo, HTML/CSS, and JavaScript with features like Algolia search and Twikoo comments, demonstrating front-end capabilities. Developed Raspberry Pi-based air quality monitoring systems with Python backend services at CASLab CWRU.
- **Embedded Systems Expertise:** At Shanxi Sensor & Control Electronics, designed valve control systems using STC8H8K64U MCU, optimizing command protocols to improve system efficiency by 15%. Implemented PWM-controlled modules and ADC sensor integrations.
- **Technical Leadership:** As Tutor Assistant at Shanxi Tongwen College, mentored 50+ students in C/C# programming while maintaining lab infrastructure. Led the Student Union's Science Department, organizing events and teaching Adobe Creative Suite tools.

What I Can Contribute:

- Develop robust [.NET/React/other relevant tech] solutions drawing on my experience with RESTful APIs (Merriam-Webster Dictionary Wrapper) and system integration (IoT projects)
- Troubleshoot complex technical issues using my debugging experience with embedded systems and Raspberry Pi services
- Collaborate effectively across teams, as demonstrated in my research assistant roles and student leadership positions

[Company Name]'s focus on [specific aspect of company's work] resonates with my passion for [connect to your relevant projects]. My work on [specific project, e.g., the air quality monitoring system or offline dictionary] similarly aimed to [connect to company's mission].

I would welcome the opportunity to discuss how my technical skills and problem-solving approach could benefit [Company Name]. Thank you for your consideration—I've attached my resume and would be happy to provide code samples or additional materials. I look forward to the possibility of contributing to your

team.

Best regards,

Chentao Fan