

Tauha Imran 22i1239 cs-g TBW Assignment #2

Reflection

Through this assignment, I gained valuable insights into structuring and organizing tasks effectively. Utilizing Chain-of-Thought (CoT) prompting and AI assistance allowed me to approach each step methodically, ensuring a coherent and comprehensive outcome. This experience has enhanced my understanding of task breakdown and the creation of targeted application materials.

Logical Breakdown with CoT

- Learned to systematically break down tasks.
- Ensured thorough and accurate completion of each section.

AI Support and Clarification

- AI offered suggestions and verified information.
- Enhanced the quality and relevance of my resume and cover letter.

Targeted Application with CoT Prompting

- Emphasized relevant experiences and skills.
- Created compelling, job-specific application materials.

Overall, this process has equipped me with the skills to produce polished and effective documents, highlighting the importance of logical task management and the benefits of AI assistance.

Resume

Tauha Imran

+92-31200-82842 | tauhaimran@gmail.com | [LinkedIn] | [GitHub]

Professional Summary

"Energetic and detail-oriented computer science student seeking an Embedded Systems Engineer Intern position at Tech Innovators Inc. Excited to apply academic knowledge and hands-on experience in embedded systems to contribute to innovative projects in a collaborative environment."

Education

FAST NUCES, Islamabad, Pakistan *Bachelor of Science in Computer Science* Aug. 2022 – June 2026

Fazaia Inter College, Islamabad, Pakistan *HSSC Pre Engineering* Aug. 2020 – Jun. 2022

Skills

- **Programming Languages:** Python, C/C++, C#, SQL, Assembly, Shell, HTML/CSS, R, Java
 - **Frameworks:** .NET, Bootstrap, WinAPI, LINUX system calls
 - **Developer Tools:** Docker, Google Collaboratory, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Gedit, RStudio, SQLServer Management Studio
-

Experience

Embedded Systems Developer - Intern | 128 Technologies, Islamabad, Pakistan | June 2024 – Aug 2024

- Developed a Ground Control System using Python for drones and UAVs.
- Conducted research and design for an MVP and UAV development.

Lab Demonstrator for COAL | FAST NUCES, Islamabad, Pakistan | Jan 2024 - Jun 2024

- Taught and guided students to set up DosBox and X86 Assembly.
- Assessed and troubleshooted computer and Assembly development problems.
- Maintained upkeep of students' daily task scores and grading.

Lead Graphic Designer | FAST Parliamentary Debating Championship, Islamabad, Pakistan | Mar 2024 - Jun 2024

- Lead designer for all graphics, advertising, and posts, also serving as the Deputy Director of Media and Graphics.
-

Projects

FlexTrainer Desktop Application | .NET, C#, MySQL, MS Excel, and ERD design May 2024

- Developed .NET Desktop application using C#, SQL with ERD blueprints as a Database Systems project.

PACMAN Returns | C++, C, Multithreading, SFML, LINUX System Calls, and Shell Scripting May 2024

- Developed a multithreaded Pacman game implemented in C++ with UNIX system calls, semaphores, mutexes, and shell scripting.

Inter Planetary File System | C++, C, WinAPI, SHA-1, B-Trees, File Encryption Dec 2023

- Developed a simulated network topology data structures project using WinAPI and SHA-1 encryption for managing file systems in B-trees and a virtual machine topology in a circular linked list.

PACMAN Game | X86 Assembly, WinAPI, Irvine, Macros Dec 2023

- Developed a Pacman game implemented in X86 Assembly using Irvine Library, macros, and WinAPI.

Theoretical Analysis of a Mathematical Model for Pollution Concentration 2022-2023

- Conducted pollution model analysis via differential equations, MATLAB, SIMULINK, and academic literature research.
- djitellopy, tkinter, ttkbootstrap, pygame

Cover Letter

Tauha Imran
+92-31200-82842
tauha.imran@gmail.com
[LinkedIn]
[GitHub]
[Date]

[Recipient's Name]
Tech Innovators Inc. (dummy name / scenario)
[Company Address]
[City, State, ZIP]

Dear [Recipient's Name],

I am writing to express my interest in the Embedded Systems Engineer Intern position at Tech Innovators Inc., as advertised. As a motivated and detail-oriented computer science student with a passion for embedded systems, I am excited about the opportunity to contribute to your team and work on innovative projects.

During my academic journey at FAST NUCES, I have developed a solid foundation in embedded systems design, microcontroller programming, and real-time operating systems. I have hands-on experience with platforms such as Arduino and Raspberry Pi, and I am proficient in programming languages like C/C++ and Python. My coursework and projects have provided me with a deep understanding of hardware interfaces and communication protocols, which I believe align perfectly with the requirements of this role.

In my recent internship at 128 Technologies, I developed a Ground Control System using Python for drones and UAVs, and conducted research and design for an MVP and UAV development. Additionally, my role as a lab

demonstrator at FAST NUCES allowed me to teach and guide students in setting up DosBox and X86 Assembly, enhancing my skills in communication and problem-solving.

I am particularly drawn to Tech Innovators Inc. because of your commitment to cutting-edge technology and innovation. I am eager to bring my technical skills, enthusiasm, and problem-solving abilities to your team. I am confident that my background and passion for embedded systems will enable me to contribute effectively to your ongoing projects.

Thank you for considering my application. I look forward to the opportunity to discuss how my skills and experiences align with the goals of Tech Innovators Inc.

Please feel free to contact me at +92-31200-82842 or tauheimran@gmail.com to schedule an interview.

Sincerely,
Tauha Imran
+92-31200-82842
tauheimran@gmail.com

ScreenShots

Job Analysis

come up with a job opening / role for an embedded systems engineer for a computer science student

Job Opening: Embedded Systems Engineer Intern

Company: Tech Innovators Inc.

Location: Remote / On-site in [City]

Position: Embedded Systems Engineer Intern

About the Role: We are seeking a passionate and talented Embedded Systems Engineer Intern to join our dynamic team at Tech Innovators Inc. This role is perfect for a computer science student eager to gain hands-on experience and work on cutting-edge projects. As an intern, you will have the opportunity to contribute to the development and optimization of embedded systems across various applications.

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Responsibilities:

- Assist in the design, development, and testing of embedded software and firmware for microcontrollers and microprocessors.
- Collaborate with cross-functional teams to integrate hardware and software components.
- Participate in debugging and troubleshooting to ensure system functionality and performance.
- Conduct research and stay updated on emerging technologies and industry trends in embedded systems.
- Document software designs, code, and testing procedures.

Qualifications:

- Currently pursuing a Bachelor's or Master's degree in Computer Science, Electrical Engineering, or a related field.
- Basic understanding of embedded systems, microcontrollers, and real-time operating systems (RTOS).
- Proficiency in programming languages such as C/C++ and Python.
- Knowledge of hardware protocols (SPI, I2C, UART,



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- Proficiency in programming languages such as C/C++ and Python.
- Knowledge of hardware interfaces and communication protocols (SPI, I2C, UART, etc.).
- Strong problem-solving skills and the ability to work independently and as part of a team.

Preferred Skills:

- Experience with development tools such as Arduino, Raspberry Pi, or similar platforms.
- Familiarity with version control systems (e.g., Git).
- Enthusiasm for learning and working on innovative projects.

Benefits:

- Gain hands-on experience in embedded systems engineering.
- Opportunity to work with experienced professionals and contribute to real-world projects.
- Flexible working hours and potential for remote work.
- Mentorship and professional development opportunities.

How to Apply: Submit your resume and cover letter to [\[Email Address\]](#) or express your interest in the



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give me a basic layout for a resume / cover letter tailored to this role

along with new resume bullet points and career objective summary.

Resume Layout for Embedded Systems Engineer Intern

[Your Name] [Your Address] [City, State, ZIP] [Email Address] [Phone Number] [LinkedIn Profile] (optional)

Objective

Career Objective: "Motivated and detail-oriented computer science student seeking an Embedded Systems Engineer Intern position at Tech Innovators Inc. Eager to apply academic knowledge and hands-on experience in embedded systems and contribute to innovative projects in a collaborative environment."

Education

[Redesigning Cover Letter](#)

using the following information fill the above resume/cover letter template
info:

Tauha Imran

+92-31200-82842 | tauhaimran@gmail.com | LinkedIn | github |

Behance

Education

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Fazaia Inter College Islamabad, Pakistan

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Experience

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128 Technologies Islamabad , Pakistan

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Lab Demonstrator for COAL Jan 2024 - Jun 2024

FAST NUCES Islamabad Pakistan

- Teaching and Guiding students to set up DosBox and X86

As



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SQLServer Management Studio

Libraries: djitellopy, tkinter , ttkbootstrap, pygame

Resume for Tauha Imran

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Theoretical Analysis of a Mathematical Model for Pollution Concentration 2022-2023

- Conducted pollution model analysis via differential equations, MATLAB, SIMULINK, and academic literature research.

Certifications

- Certified in Embedded Systems by [Certification Authority] (Month Year)
- Completed Course on Real-Time Operating Systems (RTOS) (Month Year)

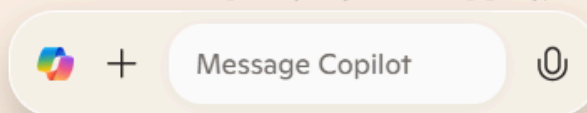
Extracurricular Activities

- Member of the Robotics Club, FAST NUCES
- Volunteer at [Community Organization]

Cover Letter for Tauha Imran

Tauha Imran +92-31200-82842 tauhaimran@gmail.com [LinkedIn] [GitHub] [Behance]
[Date]

[Recipient's Name] Tech Innovators Inc. [Company Address] [City, State, ZIP]



remove certifications
remove Extracurricular Activities

and re-name Object / Career Objective as something else
also change the starting of the Career Object to something more
inviting

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[Behance]

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Education



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