Hisam Mehboob

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Profile

Computer Science student with hands-on experience in systems and embedded programming, aiming to build innovative, low-level tech solutions that bridge hardware and software.

Experience

- **COLAB NU** — Peshawar, Khyber Pakhtunkhwa
  Tier 1 Member — *Oct 2024 - Present*
  - **Hugo**: Developed static websites using Hugo, leveraging its fast build times and Go-based architecture for efficient content management and templating.
  - **Kernal Programming**: Created custom Linux kernel modules, focusing on low-level system optimization, device drivers, and hardware-software interaction for enhanced performance.
  - **Raspberry Pi 5** : Engineered IoT and embedded systems solutions using Raspberry Pi 5, integrating GPIO, and hardware automation for custom projects.

Projects

- **Text Editor**: Coded in C/C++ with no dependencies, and it implements all the basic features.
- **POSIX Shell**: Built a Portable Operating System Interface compliant shell in C langauge.
- **Ray Tracing**: Implemented a ray tracer from scratch using C++ gaining hands-on experience in rendering algorithms, 3D graphics, and computational geometry.
- **Nand2Tetris**: Built a modern computer system from the ground up, designing hardware components (from logic gates to CPU) and software layers (assembler, virtual machine, and compiler) to create a computer capable of running high-level programs.

Communities Work

- **IEEE FAST NUCES, Fast National University Peshawar** — **Mar. 2025 – Present**
  Junior Representative
  - **Work**: Participated in IEEE-hosted campus events, workshops, and tech seminars to expand knowledge in cutting-edge engineering trends and network with industry peers.

Education

- **National University of Computer and Emerging Sciences** — **Aug. 2024 – Jun. 2028**
  Bachelor of Science in Computer Science; CGPA:3.50
  - **Coursework**: Operating Systems, Parallel and Distributed Computing, Computer Organization and Assembly Language, Data Structures, Algorithms, Software Testing and Debugging.

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