**MUHAMMAD YAHYA**

Islamabad, Pakistan • (+92) 3303622228 • **DOB**: August 24, 2002

[yahyaaanaeem@gmail.com](mailto:yahyaaanaeem@gmail.com) • [linkedin.com/in/myahyanaeem](https://www.linkedin.com/in/myahyanaeem/) • [github.com/dotyahya](https://github.com/dotyahya)

**PROFESSIONAL SUMMARY**

Enthusiastic Computer Science student skilled in graphics design, lab instruction, and project development. Proficient in various programming languages and frameworks with strong problem-solving abilities.

**EXPERIENCE**

**FAST National University of Computer and Emerging Sciences**, Islamabad

**AI/ML Intern at UrduX AI e-lab July 2024 – Present**

* + Learning about basic machine learning models, and data gathering techniques under supervision.
  + Developing a chatbot tailored to domestic violence support using a RAG approach.
  + Utilized OpenAI’s **text-embeddings-ada-002** model for vector embeddings and powered the bot with **gpt-4o mini**

**FAST National University of Computer and Emerging Sciences**, Islamabad

**Lab Demonstrator (Data Structures)** **August 2023 – January 2024**

* Delivered expert technical guidance to students in resolution of compile-time, run-time, and semantic errors.
* Advised students on the selection of appropriate data structures in their lab assignments.
  + Assisted students in navigating and overcoming coding challenges and technical obstacles.

**FAST National University of Computer and Emerging Sciences**, Islamabad

**Lab Demonstrator (Programming Fundamentals) January 2023 – May 2023**

* + Provided technical assistance to students in resolving compile-time, run-time, and semantic errors.
  + Assisted with debugging and troubleshooting technical issues during lab sessions.
  + Facilitated small group discussions to enhance students’ programming concepts and best practices.

**PROJECTS**

[**Personal Portfolio**](https://dotyahya.github.io/my-portfolio/) **Website using ReactJS (Under Development) May 2024 – Present**

* Currently developing already hosted responsive portfolio on GitHub pages.
* Implementing responsive design principles to ensure optimal viewing on various devices.

**AI Timetable Scheduler using Genetic Algorithm in Python May 2024**

* Developed a scheduler incorporating genetic algorithm principles such as mutation, crossover, and selection.
* Coded a fitness function to enforce hard and soft constraints, ensuring no clashes for each batch and section.
* Achieved optimal scheduling outcomes, validating the system through multiple iterations.

**Banking Application System in Java September 2023**

* Built a comprehensive banking system using Object Oriented Programming principles.
* Secured data with encapsulation, created class hierarchies, and implemented polymorphism.

**Crystal Quest Game in C++ May 2023**

* Utilized proficiency in C++ programming and data structures to ensure efficiency.
* Employed shortest path algorithms, including Floyd-Warshall, Dijkstra, and Prim’s to determine the most efficient path to the crystal from the player’s position.

[**Image Encoder Decoder Quadtree Implementation in C++**](https://github.com/dotyahya/image-encoder-decoder-quadtree-implementation) **April 2023**

* Designed and implemented a program for encoding and decoding images using quadtree and 2D linked list.
* Conducted comprehensive testing and debugging to verify the accuracy of the decoded image.
* Utilized the OpenCV library to integrate image reading and writing functionality.

**SKILLS**

**Programming/Structuring Languages:** C++, C, Java, Python, Bash, HTML, CSS, JavaScript, React

**Frameworks and Tools:** Git, GitHub, Linux/Unix, Google Colaboratory, Jupyter Notebook, Anaconda, Visual Studio, Visual Studio Code, Eclipse IDE, Figma, SQL Server, ASP.NET, Node.js, npm

**Soft Skills:** Team Management, Public Speaking, Teamwork, Debugging, Troubleshooting, Project Management

**EDUCATION**

**FAST National University of Computer and Emerging Sciences,** Islamabad **August 2021 – June 2025**

**BSc, Computer Science**

**Relevant Coursework:** Programming Fundamentals, Object Oriented Programming, Data Structures, Design and Analysis of Algorithms, Operating Systems, Database Systems, Computer Organisation and Assembly Language, Discrete Structures, Calculus I & II, Linear Algebra, Software Engineering, Statistical Modeling, Artificial Intelligence.