

Almaan Khan

Computer Science Student

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EDUCATION

King Fahd University of Petroleum and Minerals (KFUPM)

2023 – 2027

Bachelor of Science in Computer Science

GPA: 3.961 (out of 4.000)

EXPERIENCE

BestCircle AI ☞, AI Engineering Intern

06/2026 – 08/2026

- Co-developed a **PDPL compliance platform** using **Next.js**, **PostgreSQL**, and **Vertex AI** to evaluate business documents against **regulatory rules** and produce **citation-grounded findings**.
- Built an **end-to-end document analysis workflow** spanning ingestion, evidence retrieval, compliance classification, and human review.
- Worked on research on **joint-source dependence** in **vision-language models**, evaluating five models across **2,532 questions** and finding **0.6–1.9%** confirmed **joint-source dependence**.

Fatima Fellowship ☞, Research Fellow

04/2026 – Present

- Investigating **unsupervised 3D brain MRI anomaly detection** under **Dr. Sarah Anjum (Santa Clara University)** using MONAI generative models.
- Developing hierarchical autoencoder feature residuals, currently improving tumour localisation from **AUROC** from **0.556** to **0.648**.
- Benchmarking **L1**, **L2**, **Cosine**, and **Mahalanobis** scoring methods for tumour localisation.

Saudi Medical AI Lab (SMAIL) ☞, Research Intern

09/2025 – 08/2026

- Worked with **Dr. Sultan Alshehri (Carnegie Mellon University)** to reduce medical VLM hallucinations by developing a **LoRA-tuned verification gate** for rejecting false-premise queries.

BRAIN Lab ☞, Undergraduate Researcher

01/2025 – 12/2025

- Project Supervisor: Dr. Muzammil Behzad.
- Investigated **class imbalance and rare-object detection** across five modern detector architectures on the **MS-COCO dataset**.
- Benchmarked imbalance-handling methods, including **class-specific confidence thresholds and ensemble techniques**, across rare and frequent object classes.

KAUST Academy, Summer School Intern

06/2025 – 09/2025

- Accepted into the prestigious KAUST Academy Artificial Intelligence Summer School Program as an intern.
- Selected in the **top 100 students** from an initial applicant pool of **16,000+ students**.

SDAIA-JRCAI, Undergraduate Researcher

01/2025 – 06/2025

- Worked with **Dr. Shujaat Khan** on a project to accurately detect Dyslexia.
- First stage of the project was recreating the model used in the research paper published by PLOS ONE "**Predicting risk of dyslexia with an online gamified test**".
- Second stage of the project was implementing a novel **ensemble** approach coupled with **mRMR feature selection**.

PROJECTS

Rukn ☞, National Center for Mental Health Promotion

09/2025 – 11/2025

- Developed an **AI-powered feedback analysis platform** for **NCMH** using fine-tuned **MARBERT models** to classify urgency and emotions in thousands of Arabic helpline interactions.

- Architected a **real-time early warning system** with **Next.js, FastAPI, and Supabase** featuring an interactive dashboard visualizing mental health trends across Saudi provinces.
 - Implemented **human-in-the-loop workflows** with temperature-calibrated classification and crisis keyword detection for ethical AI deployment at national scale.
- Jarir AI Salesman** *🔗, KAUST Academy* 06/2025 – 08/2025
- Architected an intelligent chatbot assistant for the Jarir Company with tool-based reasoning to streamline the online shopping experience for customers.
 - Engineered an **agentic** system using **LangGraph** to autonomously access and search Jarir product data.
 - Developed a **LangChain** agent that leverages specialized tools to provide personalized recommendations from CSV-based data.

PUBLICATIONS

Rejected When Asked, Followed When Assumed: False Presuppositions in Medical Vision-Language Models <i>NeurIPS GenAI4Health Workshop</i>	2026
Feature-Efficient and Interpretable Dyslexia Detection via Soft Voting Ensemble Learning <i>KFUPM JURI</i>	2026

CLUBS & ORGANISATIONS

KFUPM Robotics Team (VEX U), Member • Selected to represent KFUPM in the VEX U Robotics Competition .	08/2026 – Present
University Rover Challenge (KFUPM Team), Software Team Lead • Leading the development of software and autonomous algorithms for KFUPM's competition rover.	08/2026 – Present
IEEE KFUPM Student Branch, Marketing Team Lead • Led a team of 5 members to plan and execute marketing campaigns for IEEE events attended by 300+ students over two semesters.	01/2025 – 01/2026

SKILLS

• Python	• LangChain	• TensorFlow	• OpenCV
• Pandas	• SQL	• PyTorch	• NumPy

AWARDS

International Scholar Award, University of Toronto • Awarded the prestigious \$100,000 International Scholar Award from the University of Toronto for achieving high academic merit in high school, with an undergraduate admission offer in Computer Science.	2023
Dean's List, College of Computing and Mathematics (KFUPM) • Received the Dean's List honor certificates (Term 241, 242, 251) from the College of Computing and Mathematics for being amongst the top 10% highest CGPA students in the college.	2025
Calculus Award - Calculus III, KFUPM Mathematics Department • Received an award from the KFUPM Mathematics Department for achieving academic excellence in the MATH201 (Calculus III) course in the Sophomore year.	2025
Physics Excellence Awards, KFUPM Physics Department • Received an award from the KFUPM University President for achieving academic excellence in the PHYS101 (General Physics I) and PHYS102 (General Physics II) courses in the Freshman year.	2024