

## Alaqa Akbar

Nationality: Saudi • AlKhobar, Saudi Arabia • alaqaakbar@hotmail.com • +966502082200 • LinkedIn: alaqa-akbar • GitHub: alaqa-akbar

### EDUCATION

|   |                            |
|---|----------------------------|
| <b>King Fahd University of Petroleum and Minerals (KFUPM)</b> , Dhahran, Saudi Arabia | <b>Sep 2022 – May 2026</b> |
| <i>BSc in Computer Engineering (Research Concentration with a focus on AI)</i>        | GPA: 3.95/4.00             |
| <b>Georgia Institute of Technology</b> , Atlanta, GA, United States                   | <b>Aug 2024 – Jan 2025</b> |
| <i>Exchange student in Computer Engineering</i>                                       | GPA: 4.0                   |
| <b>Oxford University</b> , Oxford, United Kingdom                                     | <b>Jul 2024 – Aug 2024</b> |
| <i>Summer Program in Advanced Artificial Intelligence</i>                             | Grade: A                   |

### WORK EXPERIENCE

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| <b>Baker Hughes</b> , Houston, TX, USA – <b>Computer Engineer Intern</b>  | <b>Jun 2025 – Aug 2025</b> |
| <ul style="list-style-type: none"><li>Assisted in automation projects by documenting and designing test procedures of embedded systems architectures, and developing machine learning models for abnormality detection</li></ul>  |                            |
| <b>UAS2030</b> , Dhahran, Saudi Arabia – <b>AI &amp; Control Engineer</b>   | <b>Jan 2025 – Jun 2025</b> |
| <ul style="list-style-type: none"><li>Worked on developing AI and control logic for an unarmed aviation system (autonomous drone)</li></ul>   |                            |
| <b>Georgia Tech OLIVES Lab</b> , Atlanta, GA, United States – <b>Research Assistant</b>   | <b>Sep 2024 – Dec 2024</b> |
| <ul style="list-style-type: none"><li>Worked in Professor Ghassan AlRegib's OLIVES lab on AI research to diagnose optical diseases and detect seismic data</li><li>Managed multiples datasets including terabytes of data: formatting, documenting, and uploading to HuggingFace</li></ul>  |                            |
| <b>SDAIA-KFUPM Joint Research Center for AI</b> , Dhahran, Saudi Arabia – <b>Researcher</b>   | <b>Feb 2024 – Aug 2024</b> |
| <ul style="list-style-type: none"><li>Worked with Dr. Abduljabbar Siddiqui on his research on Adversarial Patch Attacks on Object Detectors</li><li>Created a data pipeline to generate a dataset in real time throughout the model training phase using OpenCV</li><li>Modified an adversarial attack library (Adversarial Robustness Toolbox) to train a customized adversarial patch attack model robust against adverse weather conditions such as rain by utilizing a project gradient descent (PGD) algorithm</li></ul> |                            |
| <b>King Fahd University of Petroleum and Minerals</b> , Dhahran, Saudi Arabia – <b>Course Grader</b>  | <b>Jan 2024 – Jul 2024</b> |
| <ul style="list-style-type: none"><li>Responsible for grading lab assignments for students in KFUPM's Object Oriented Programming course</li><li>Responsible for grading homework assignments for students in KFUPM's Intro to Programming in Python and C course</li></ul>   |                            |

### RESEARCH/PUBLICATIONS

- Allahham, A., & Akbar, A. (2025). *Re-Colonization of Architectural Knowledge through AI: an Echo Chamber*. (In progress)
- Akbar, A., & Siddiqui, A. (2025). *RainPGD: Investigating Rain-Robust Adversarial Patches*. (In publication process)
- Alshehri, I.\*, Alshehri, A.\*, Almalki, A.\*, Bamardouf, M.\*, & Akbar, A.\* (2024, August 31). *BreachSeek: a Multi-Agent automated penetration tester*. arXiv.org. <https://arxiv.org/abs/2409.03789> (Preprint)

\* indicates equal contribution

### EXTRA-CURRICULARS

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|---|---------------------------|
| <b>Qimam Fellowship</b> , Riyadh, Saudi Arabia – <b>Fellow</b>  | <b>Mar 2025 – Present</b> |
| <ul style="list-style-type: none"><li>50 students selected globally out of 18,000+ applicants to participate in a prestigious leadership mentoring program</li></ul>  |                           |
| <b>BCG Jeel Tamooh Fellowship</b> , Riyadh, Saudi Arabia – <b>Fellow</b>  | <b>Mar 2025 – Present</b> |
| <ul style="list-style-type: none"><li>150 students selected out of several thousand applicants to be mentored and experience work at BCG</li></ul>  |                           |
| <b>KAUST Academy AI Specialization</b> , Thuwal, Saudi Arabia & Oxford, United Kingdom – <b>Participant</b>   | <b>Jan – Aug 2024</b>     |
| <ul style="list-style-type: none"><li>Chosen as one of 15 students from over 7000 applicants to attend summer courses at Oxford University</li><li>Took courses on Deep Learning, Computer Vision, Natural Language Processing, and Deep Unsupervised Learning</li></ul>  |                           |
| <b>Imaar</b> , Dammam, Saudi Arabia – <b>Volunteer</b>  | <b>Feb 2024</b>           |
| <ul style="list-style-type: none"><li>Spent a total of 10+ hours volunteering at a government funded apartment for the needy by assisting in its repairs</li></ul>  |                           |
| <b>Saudi Mathematics Olympiad Team</b> , Thuwal, Saudi Arabia – <b>Member</b>   | <b>2017 – 2019</b>        |
| <ul style="list-style-type: none"><li>Took 500+ hours of intensive mathematical training at King Abdullah University of Science and Technology</li><li>Represented Saudi Arabia at the Junior Balkan Mathematical Olympiad in Cyprus where Saudi Arabia got 3rd</li></ul> |                           |

### RELEVANT TECHNICAL SKILLS/COURSEWORK

**Computing Languages and Technologies** – Python, Java, C/C++, Verilog, Lua, MATLAB, R, Git, Windows, Linux / Unix  
**Coursework** – Computer Vision, NLP, Deep Unsupervised Learning, Deep Learning, Data Science, Computer Architecture, Data Structures and Algorithms, Object Oriented Programming, Embedded Systems, Computer Networks

### ADDITIONAL SKILLS AND INTERESTS

**Languages:** Bilingual in Arabic and English (114 TOEFL)

**Interests:** Football; Badminton; Video Games