

Ashir Rashid

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EDUCATION

New York University Abu Dhabi

B.S. in Computer Science

Abu Dhabi, UAE

Graduation Date: May, 2026

Relevant Courses

Network Security, Foundations of Machine Learning, Natural Language Processing, Algorithms, Data Structures, Data Management and Analysis, Operating Systems, Computer Networking, Probability and Statistics, Linear Algebra

WORK EXPERIENCE

eBrain Lab

Deep Learning Research Assistant

Abu Dhabi, UAE

May, 2023 - Present

- Enhanced energy and memory efficiency of **Deep Neural Networks** including **Large Language Models** by **8.3%** through implementing a state-of-the-art quantization framework, expanding on an existing open framework (HAQ).
- Optimized quantization configurations by applying **Reinforcement Learning, Evolutionary Search, and Differentiable NAS**, improving model performance by **15%** and reducing hyperparameter search time by **43%**.
- Efficiently ran experiments and optimization techniques, reducing manual work and computation costs by **12%**.

Gantom Lighting & Controls

Full Stack Engineer

California, US (Remote)

Jan. 2022 - Jul. 2023

- Managed the creation of an accessible interactive web application, enhancing user engagement by **28%**, leveraging **Django** for back-end development and **Figma** for iterative UX design enhancements with the design team.
- Designed and deployed a **Firestore** database storing **500+** products, enabling efficient data storage and retrieval.
- Ensured seamless user access by deploying the application on **Google Cloud Platform** using **Google App Engine**.
- Reduced page load time by **22%** through database optimizations, caching, and asset compression strategies.
- Refined project outcomes by surveying customers and collaborating across teams on **Asana** and **GitHub**.

TwoSnowflakes

Game Developer

Zurich, Switzerland (Remote)

Dec. 2021 - Feb. 2022

- Developed a framework for validating game concepts, reducing the prototyping time by **30%** using **Godot** and **GitHub Actions** to develop **CI/CD** pipelines to automate testing and integration with internal tools.
- Automated repetitive tasks using **Bash scripting**, cutting down manual effort and saving **15%** of development time.
- Improved game UI design process by creating mockups in **Figma**, leading to clearer visual direction for the team.

OPEN-SOURCE EXPERIENCE

IntelOwl

Open-source OSINT solution to get threat intelligence data

Jan. 2023 - Present

- Enhanced phishing defense capabilities by integrating the CheckPhish **API** with the dynamic React **front-end**.
- Optimized project scalability and collaboration by resolving **React-Django** integration and **CI/CD** pipeline issues.
- Future-proofed data sharing mechanisms by implementing TLP v2.0 support, ensuring backwards compatibility.

Learn-GDScript

Open-source educational web app made using Godot

Dec. 2021 - Feb. 2022

- Refined user experience by resolving an active issue in the Learn-GDScript **open-source** project with **2000+** stars.

PERSONAL PROJECTS

Source code for these projects is public on my GitHub

- Better RAG - **Elasticsearch, HPC**: Using Information Extraction techniques to improve RAG retrieval accuracy.
- Beads 12 - **Python, GDScript, Reinforcement Learning**: A game where you can play against an AI opponent.
- P2P File Sharing - **Python, Sockets**: A file transfer app utilizing a peer-to-peer approach, similar to BitTorrent.
- Flashcards CLI - **Python, API**: Flashcard app integrated with a Notion database to help students study for the SAT.
- Ruins - **GLSL, Python, GDScript**: Shaders scripts and a physics simulation model for use in video games.
- Pulse - **Python, GDScript**: An algorithm designed for a responsive and realistic lightning effect in video games.
- Animations - **Python, Manim**: Generated math animations to accompany my tutoring lessons at SchoolHouse.
- Web Crawler - **Python, Scrapy**: A web-crawler that scrapes mice data and records all results in a spreadsheet.

SKILLS

- Languages: Python, JavaScript, TypeScript, C++, C, Bash, GDScript, Emacs Lisp, SQL, HTML, XML
- Development: Elasticsearch, Docker, Kubernetes, GitHub Actions, Google Cloud Platform, Firestore, HPC, Nginx, Splunk, WebAssembly, Git, PostgreSQL, MongoDB, VirtualBox, Postman, WireShark, Kali Linux, Burp Suite
- Libraries/Frameworks: Django, FastAPI, React, Pytorch, TensorFlow, TensorBoard, Scrapy, BeautifulSoup, Godot