Ashir Rashid

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EDUCATION

New York University Abu Dhabi Abu Dhabi, UAE
B.S. in Computer Science May 2022 - 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

Certifications
AWS Certified Cloud Practitioner (CCP) Jan 2025 - Jan 2028

WORK EXPERIENCE

eBrain Lab Abu Dhabi, UAE
Deep Learning Research Assistant 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 California, US (Remote)
Full Stack Engineer 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 Zurich, Switzerland (Remote)
Game Developer Dec 2021 - Feb 2022
- Developed a framework using Godot and **GitHub Actions** to validate game concepts, reducing prototyping time by **30%** through automated **CI/CD** pipelines for testing and internal tool integration.
- 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 for gathering 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 developed 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**: Shader 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.
- 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