

Abdul Azeez Shaik

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EDUCATION

New Jersey Institute of Technology (NJIT) Newark, NJ
B.S. Computer Science | Minor: Business & Info. Systems | Dean's List Aug. 2024 – May 2028
• Relevant Coursework: Python, Java (OOP), Data Structures & Recursion, Object-Oriented Design

EXPERIENCE

Contextral Newark, NJ
Co-Founder Sept. 2025 – Present
• AI/IT services company building custom on-premise AI workflows for regulated and compliant industries; flagship product *Virtual Archives* deployed at Newark City Clerk's Office – HIPAA/FERPA-compliant document intelligence via Ollama, Qdrant, and LangChain

NJIT – Dept. of Humanities & Social Sciences (Prof. Michael Laudенbach) Newark, NJ
LLM/NLP Engineering Research Assistant (Volunteer) Mar. 2026 – Present
• Deploy, fine-tune, and evaluate local LLMs for computational linguistics research (Hugging Face, PyTorch); architect LAN, Tailscale VPN, and air-gapped PC infrastructure for the lab
• Working on a paper on computational linguistics and local LLM deployment behavior across open-source models

NASA – National Aeronautics and Space Administration Newark, NJ & Wallops Island, VA
RockSat-X Computer Science/AI Lead – A.R.R.O.W. Mission Sept. 2025 – Present
• Sole CS/firmware engineer for a suborbital payload; wrote all flight code for SCOUT (SAMD21, Langmuir probe + XBee transmitter) and Overwatch (RA4M1, IMU logger + receiver) subsystems through CoDR, PDR, and CDR
• Flew payload at NASA Wallops Island (June 2026); led post-flight analysis of returned telemetry – processed 49,171 IMU samples and diagnosed a 75.3% RF reception rate, then authored the mission's final technical report

NJIT iXR Research Lab (Dr. Margarita Vinnikov) Newark, NJ
Lead Experiment Manager, Developer & Project Manager (Volunteer) Sept. 2024 – Present
• Oversee all lab experiments; conduct gesture-based XR studies using Oculus, Unity, Azure, and C#; nearly doubled participant engagement with 100% consent form completion
• Led independent sub-study in VROOM Project (published ACM IMX 2026); co-author research papers advancing lab methodology and scalability

Project Elevate Newark, NJ
Chief Product Officer – On-Campus Startup (Volunteer) Jan. 2025 – Aug. 2025
• Built YOLOv8 CV system for illegal dumping detection with Newark DPW (40% faster response); developed OCR + AI pipeline digitizing decades of city archives
• Created *Algora* (multi-model AI classroom tool) and *Virtual Archives* (local document intelligence); led cross-functional team of 5+ engineers

RESEARCH & PUBLICATIONS

- [Preprint] *LegacyRAG: Multi-GPU RAG via Vulkan on Legacy Hardware*. A. Shaik. **SSRN 6750398**.
- [Poster] *Corpus Controlled Agent Specialization*. A. Shaik et al. **NE Agents Day 2026**, Jane Street, NYC.
- [Paper] *VROOM: Evaluating Role-Based Collaboration for Immersive Ontology Manipulation*. Chitransh, Paulino, Shaik et al. **ACM IMX 2026**, pp. 628–633.
- **Reviewer – IEEE TKDE** (invited as an undergraduate).

PROJECTS & OPEN SOURCE

CorpusAgent | *Qwen, Multi-Agent Architecture, RAG* | Qwen Global AI Hackathon (\$70K Prize Pool) – Participant Jul. 2026
• Four-agent architecture (Specialization, VersionPatrol, QueryDecomposition, Escalation agents); 12/12 synthesis tuning benchmarks passed

Hop-It | *Gemini Vision, K2 Think Agent, JS Physics Engine* | hopit.us – HackPrinceton @ Princeton Apr. 2026
• Draw a platformer on paper, photograph it, play it in browser; hand-built AABB physics engine (coyote time, jump buffering, AI autoplay) – **1st Place Amateur Track | 1st Runner-Up AI + Hardware**

Babel | *React/TS, WebSockets, Claude API, Twilio, ESP32* | babel-brown.vercel.app – NJIT Hackathon 2026
• Real-time AI translation platform; mixed-input rooms (voice, text, SMS/WhatsApp) via Claude; experimental ASL recognition via vision API; ESP32 hardware companion

whichllm | Open Source Contributor | github.com/Andyyyy64/whichllm (2.4k stars) May 2026
• Opened Issue #47 proposing a layered GPU metadata resolver; merged PR #75 adding Kepler-era Quadro entries with Vulkan-only tagging and pytest coverage

AWARDS, ADDITIONAL EXPERIENCE & SKILLS

Profeta Foundation – Innovation & Entrepreneurship Fellowship 2026 **NVIDIA Inception** – Member, Contextral 2026
Dean's List – NJIT 2024 – Present **Best Presenter Award** – NJIT AI Exploration Day Dec. 2025
1st Place – NJIT Intramural Bowling Spring 2025 **Verizon Foodloops** – Smart Campus Competition, Team Captain Oct. 2025
Panelist – FYEE Conference 2026 **Keynote Speaker** – NJIT College Day 2026
CrowdTheory – Community Organizer (Volunteer), EqualSpace Newark Apr. 2026 – Present **NJIT CŕE** – E-board Social Media Manager (Volunteer) 2025 – Present
Develop for Good – Software Engineer (Volunteer), Mates Fund Ltd May – Aug. 2026
CodePath – Mentor & Program Experience Advisor (Volunteer), grew mentee group Aug. 2025 – Mar. 2026
IDEAL Institute – Research Workshop Nov. 2025
Languages: Python, Java, JavaScript, C#, SQL, CUDA **DB:** MySQL, MongoDB, Firebase
AI/ML: PyTorch, TensorFlow, YOLOv8, Hugging Face, LangChain, RAG, LLM Fine-tuning, Ollama, Qdrant, NVIDIA DeepStream, OpenCV
Frameworks: React.js, Tailwind, Unity, Django, Next.js, FastAPI **Infra:** AWS, Azure, Docker, Git, Tailscale, NVLink/SLI, HPC (NJIT), PCB Design