Tafseer Haque

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EDUCATION

Hunter College   Expected June 2026
Bachelor of Arts in Computer Science   *New York City, New York*

- **Relevant Coursework**: Computer Architecture, Data Structures & Algorithms, Object-Oriented Programming, Theory of Computation, Operating Systems, Software Engineering, Web Development, Computer Vision

EXPERIENCE

JPMorgan Chase   June 2025 – August 2025
Cybersecurity & Tech Controls - SEP Intern   *New York City, New York*
- Built a request portal (React + TS) with a Flask backend for validation and Jira integration, reducing review time from 2 days to 8 hours.
- Automated Jenkins pipelines with gated stages (tests, lint, type checks, security scans), artifact versioning, and audit-ready change logs.
- Implemented dynamic policy validation, RBAC approvals, and structured reviewer prompts to lower rework and defects.
- Wrote runbooks and built service-health dashboards (p50/p95 latency, error rates) to speed incident triage and improve handoffs.

Tiptop Technologies   November 2023 – May 2024
Software Engineer Intern   *Remote*
- Developed an investment platform for small businesses using React, MySQL, Flask, Tailwind CSS, and Docker.
- Built user-user and item-item collaborative filtering plus gradient-based ranking, boosting engagement by 25%.
- Translated Figma designs into a full-stack app with thumbnail previews and fly-out animations, increasing retention by 15%.

Hunter College Library IT Systems   March 2023 – Present
IT Support Assistant / Website Developer   *New York City, New York*
- Led Drupal 7 to 10 migration and headless CMS integration with Next.js.
- Implemented Platform.sh CI/CD with review apps and caching, cutting deploy time ˜60% and manual steps.
- Managed 100+ endpoints and reduced recurring incidents through scripted fixes and SOPs.

PROJECTS

Just-In-Time Access & Policy Gateway   *Python (FastAPI/Flask), Postgres, Redis, OPA, JWT/JWKs, Docker, Prometheus, Grafana, k6*
- Shipped a JIT access gateway issuing short-lived JWTs with policy-as-code (OPA), approvals, and append-only audit logs.
- Enforced RBAC and TTL grants across a sample API and DB proxy; added break-glass flow with dual approval.
- Built Prometheus/Grafana dashboards (p50/p95, approval latency) with alerts; k6 load tests held $p95 \leq 120$ ms at target RPS.
- Packaged for one-command demos with Docker Compose, seed data, runbooks, and reproducible setup scripts.

College Library Website   *Drupal 10, PHP, Next.js, Tailwind, SQLite, Platform.sh, Docker, SpringShare, JSON:API*
- Led a Drupal 10 and Next.js decoupled CMS via JSON:API, boosting front-end flexibility and performance.
- Migrated data from Drupal 7 using the Migration API and JSON queries, preserving content integrity and reducing transition time.
- Integrated SpringShare OAuth for real-time library data and built dynamic UI components with Tailwind and JS.
- Dockerized and deployed on Platform.sh, standardizing environments and enabling efficient CI/CD releases.

CReEPEr (Chess Recording Entity Position Estimator)   *Python, OpenCV, YOLOv11, BlenderProc, CUDA*
- Generated synthetic chess data by simulating high-Elo games with BlenderProc; trained a YOLO model on 20K images across varied angles and distances.
- Applied Harris corner detection and the Hough transform to locate board corners; used a perspective warp to segment the board and generate FEN mappings.
- Implemented a cost matrix to map chess pieces to bounding boxes using COCO labels, improving accuracy from 10% to 60%.

Real-time Financial Risk & Compliance Monitoring Platform   *Golang, PostgreSQL, Next.js, React*
- Streamed portfolio events through a risk engine (VaR, limit checks, liquidity stress) with stateful alerts via WebSockets, plus audit logs and approvals.
- Sustained 1,000+ TPS in synthetic k6 load ($p95 \leq 120$ ms) with connection pooling and query tuning; back-tested scenarios against historical data.
- Hardened with unit and property tests, input schema validation, and configurable thresholds.

Kilo - Text Editor   *C, termios, POSIX*
- Built a minimal terminal text editor in C (˜1K LOC) with raw-mode input, screen drawing, and file I/O.
- Enabled raw mode via `termios`; handled keypresses (Ctrl-S/Q/F), cursor movement, and scrolling.
- Drew the screen with VT100 escape sequences and batched writes via an append buffer to prevent flicker.
- Added incremental search and syntax highlighting with a simple status and message bar.

EXTRACURRICULAR ACTIVITIES

Hunter College Computer Science Club   September 2024 – January 2025
Mentor   *New York City, New York*
- Mentored students in a 17-week program on software engineering, technical interviews, and industry readiness.
- Assigned weekly tasks, led mock interview workshops, and guided a 5-week end-to-end web app project.
- Taught OOP and data structures & algorithms, helping students improve by two letter grades.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, JavaScript, TypeScript, PHP, HTML/CSS, Go
Technologies: React, Next.js, Node.js, Flask, Drupal 10, Svelte, SQL, MongoDB, Unix, TensorFlow, CUDA, Jenkins, Splunk, Kafka, Cloud Foundry, AWS, Kubernetes, Docker, NestJS, Sass
Concepts: SaaS (delivery model), content management systems, front-end/back-end development, data structures, algorithms, operating systems, agile, APIs, cybersecurity, threat modeling, SRE, unit testing, tracing, infrastructure, cloud deployment