HAMZA Y. MALIK

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EDUCATION

Temple University — College of Science & Technology Expected Graduation: December 2026

Bachelor of Science | Major: Computer Science *Philadelphia, PA*

- **Relevant Coursework:** Data Structures & Algorithms, Software Design, Cloud Computing, Operating Systems, Machine Learning, Deep Learning & LLMs, Web Application Programming, Low-Level Programming.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, JavaScript, C, SQL, PHP, HTML5, CSS
Frameworks & Libraries: Flask, Vue.js 3, Laravel, PyTorch, scikit-learn, NumPy, pandas, Matplotlib
Developer Tools: Git, GitHub, Linux, Docker, MySQL, REST APIs, JSON, Postman, Agile/Scrum
AI / ML: Neural Networks, LLMs, Agentic AI (LangGraph), LLM APIs & Tool Calling, RAG, AI-Assisted Dev
Spoken Languages: English (Native), Urdu (Native)

WORK EXPERIENCE

ITD GBS Tokyo May 2025 – Aug 2025

Software Engineering Intern *Tokyo, Japan*

- **Developed** and integrated **RESTful APIs** in **Python** that connected backend services to frontend clients across a global IT services firm's full-stack application.
- **Built** responsive frontend features using **JavaScript**, **Vue.js 3**, **HTML**, and **CSS**, improving usability and keeping the UI consistent across browsers in client-facing applications.
- **Collaborated** with engineers in an **agile** workflow using **Git** to debug, test, and refine features across the stack.

Fox School of Business, Temple University Aug 2026 – Present

AV IT Student Worker *Philadelphia, PA*

- **Support** 100+ classrooms and conference rooms by resolving AV and IT tickets for faculty and staff, diagnosing issues and documenting each fix.
- **Run** AV setup, testing, and live technical support for school events so presentations run without interruption.

Kornberg School of Dentistry, Temple University Feb 2026 – Aug 2026

Student Worker *Philadelphia, PA*

- **Processed** 100+ insurance pre-authorizations per week and maintained patient records while **supporting** front-desk operations.

Embassy of Pakistan May 2024 – Jun 2024

Media Intern *Tokyo, Japan*

- **Supported** Embassy website modernization with front-end updates and content integration, coordinating with Japanese media firms.

PROJECTS

WatchYoJet, Autonomous Air Traffic Controller | Source Code *Java | Real-Time*

- **Designed and built** an autonomous ATC decision system in Java that ingests live OpenSky flight data for Philadelphia TRACON airspace, tracks 80 to 250 aircraft at once, and issues conflict-free altitude, heading, and speed resolutions every 2 seconds.
- **Architected** modular subsystems (data ingestion, conflict detection, resolution, visualization) with a 5-person agile team, including escalation logic and an offline fallback so the system keeps running through API failures.

AGI Simulation, Multi-Agent LLM pipeline | Source Code *Python | LangGraph | Agentic AI*

- Built an 8-agent LLM pipeline (Router, Planner, Query Rewriter, Researcher, Critic, Fact Checker, Memory, Presenter) using LangGraph, with a self-refining feedback loop where a Critic agent scores research quality and routes low-confidence output back to the Researcher for up to 3 iterations.

Personal Finance Tracker, Full-Stack Web App *Laravel | MySQL | JavaScript*

- **Built** a full-stack web app for tracking income, categorizing expenses, and visualizing financial trends with dynamic charts as Team Lead (Sept – Dec 2025).
- **Developed** the backend in **Laravel (PHP)** with **MySQL**, exposing **JSON REST APIs**, and enforced data validation, CRUD, and security across the stack.

LEADERSHIP EXPERIENCE

Campus Ambassador, Temple University Japan Campus (PSAJ) Jan 2024 – Dec 2025

Pakistani Student Association of Japan *Tokyo, Japan*

- **Represented** Temple Japan to prospective students and the Pakistani community, organizing outreach and cultural events.

Takeoff Tokyo Startup Conference | Temple University Japan Hackathon Mar 2025 / Oct 2025

Event Volunteer & Hackathon Participant *Tokyo, Japan*

- **Supported** logistics at one of Japan's largest international startup conferences; **built** and pitched a software prototype with a cross-disciplinary team at TUJ Hackathon.