

Muzaffar Khaydarov

662-550-0100 | mkhaydar@go.olemiss.edu | [linkedin.com/in/muzaffar-](https://www.linkedin.com/in/muzaffar-) | github.com/mountstorm

EDUCATION

University of Mississippi

Oxford, MS

Bachelor of Science in Computer Science, Minor in Mathematics

Aug. 2024 – May 2028

- GPA: 3.87/4.0 — Chancellor's Roll (all semesters) — Sally McDonnell Barksdale Honors College (Top 5%)
- Relevant Coursework:** Data Structures & Algorithms, Computer Organization & Assembly Language, Object-Oriented Programming, Database Systems, Data Science, Discrete Mathematics, Linear Algebra, Statistics

EXPERIENCE

Software Engineering Intern

June 2026 – Present

C Spire

Ridgeland, MS

- Handled 100+ weekly zero-payment errors in a production Perl billing flow by routing invalid records to a rejection file, preventing batch-wide failures and removing on-call manual intervention
- Built an environment-aware Python automation that queries flagged accounts from a relational database and auto-issues a ServiceNow (SNOW) ticket only when actionable issues exist, replacing manual review of 10–20 daily account emails and saving on-call operators 30 min/day

Undergraduate Research Assistant – Distributed AI Systems

Jan. 2026 – Present

University of Mississippi (Prof. Feng Wang) and University of Memphis collaboration

Oxford, MS

- Implement split-inference systems in Python (PyTorch) that partition deep neural network execution across device, edge, and cloud to reduce latency and enable AI on memory- and GPU-constrained hardware
- Built a two-machine distributed inference pipeline (Mac head + Linux edge node) with a length-prefixed TCP protocol to transfer intermediate tensors, verifying output identical to single-machine inference (max error under $1e-4$)
- Profiled all 22 AlexNet split points for compute vs. transmission cost across WiFi, LTE, and backhaul links to find the latency-optimal partition; validated a column-parallel (Megatron-style) layer split as mathematically equivalent

Computer Science Teaching Assistant

Jul. 2025 – Present

University of Mississippi

Oxford, MS

- Guide 49+ students through core CS fundamentals including object-oriented programming (Java), data structures, and algorithms through hands-on labs, debugging sessions, and code reviews
- Review and optimize 300+ programs weekly, improving code quality and implementation accuracy by 20%

Undergraduate Research Assistant

Oct. 2024 – Apr. 2025

University of Mississippi - Thad Cochran Research Center

Oxford, MS

- Programmed industrial robots (Wlkata, Epson) using Python and C++ for autonomous pharmaceutical preparation, reducing contamination risk by 85% through automated drug delivery workflows
- Built data pipelines using pandas, NumPy, Matplotlib for collection, preprocessing, and visualization

PROJECTS

NeuraBash | *Python, Bash, OpenAI GPT-4, Ollama, Prompt Engineering*

Sept. 2025 – Oct. 2025

- Built a terminal-based AI coding assistant integrating GPT-4 and local LLMs (Ollama) for online and offline inference, applying prompt engineering to drive repository analysis and code explanation
- Engineered a modular CLI with a memory-efficient architecture, reducing RAM footprint by 30%

ValueStop | *EmoryHacks 2025 — React, Vite, Gemini 2.0 API, Google Maps API, Firestore*

Nov. 2025

- Developed AI-powered shopping navigator optimizing multi-store routes using Gemini API and A* pathfinding
- Engineered two-tier data architecture with pre-scraped database (150 products, 5 stores) plus real-time web scraping using Playwright; collaborated with 3-person team using Git

TECHNICAL SKILLS

Languages: Java, Python, C++, C, JavaScript, TypeScript, Perl, SQL (PostgreSQL, MySQL), Bash

Frameworks & Tools: Spring Boot, Node.js, Next.js (React), Flask, LangChain, Vite, Git, Docker, Kubernetes, AWS (EC2), Firebase, ServiceNow, PyTorch, Ollama, Claude Code, Cursor

Systems & Platforms: Linux, Red Hat Enterprise Linux (RHEL), Bash scripting, Billing Systems, Production Support

Concepts: Microservices, Distributed Systems, REST APIs, Workflow Automation, Prompt Engineering, pandas, NumPy, pytest, Relational Databases, Algorithms, Edge Computing, Workload Partitioning

Certifications: AWS Generative AI Applications (Oct 2025), IBM Data Analysis Professional (Oct 2025)