Sibtain Ahmed

Ames, IA | (515) 509-4404 | iamsibtainahmed@gmail.com | LinkedIn | Portfolio | GitHub | LeetCode

Education

Iowa State University ✎   Aug 2025 – Present | Ames, IA
PhD in Computer Science (MS expected Spring-2027)
  <u>Research focus</u>: Using mathematical attribution techniques to reason about the impact of training data on LLM predictions in reinforcement learning based fine-tuning, improving transparency and interpretability.

NED University of Engineering & Technology ✎   Oct 2020 – Aug 2024 | Karachi, Pakistan
BE Computer Systems Engineering (CGPA: 3.61/4.00)

Professional Experience

GoodCore ✎   Nov 2024 – Jun 2025 | Karachi, Pakistan
Software Engineer
- Led the development of BriefingHelper, an AI-powered data assistant integrated into BriefingSource ✎ , enabling non-technical users to query internal data in natural language, eliminating complex filters and manual SQL queries, cutting retrieval time from minutes to seconds.
- Built and deployed RESTful APIs using FastAPI, capable of handling 1,000+ concurrent users, and developed a Streamlit microservice leveraging LLM tool-calling, PgVector based retrieval (RAG), and PostgreSQL, improving query accuracy and reducing hallucination by ~50%.
- Developed a real-time tracking module to monitor token usage, API calls, and database queries, optimizing resource allocation and minimizing operating costs.
- Reduced LLM inference cost and latency by 40% by splitting a large model call into two optimized stages for SQL generation and response formatting.
- Containerized and deployed services via Docker, ensuring seamless integration and scalable operation within AWS infrastructure.
- Enhanced model reliability through prompt engineering, feedback-driven tuning, and continuous evaluation, driving adoption across multiple BriefingSource clients.

KoderLabs ✎   Aug 2023 – Oct 2023 | Karachi, Pakistan
Software Engineering Intern
- Contributed in integration of REST APIs for three Web and Android apps using React-Query, Next.js, React Native, and TypeScript, improving data flow consistency and UI responsiveness.
- Built state management, error-handling, and modular component logic, increasing client reliability and reducing load times by ~20%.
- Collaborated in Agile sprints with design, backend, and QA teams, engaging in pair programming and test-driven development to enhance code quality, version control practices, and cross-functional coordination.

Projects

Dialogify (FYP, Startup) ✎
AI-powered Cloud Orchestration & Monitoring Solution
- Implemented an AI chatbot interface to automate AWS/GCP workflows, enabling non-technical users to deploy VMs through natural language prompts, reducing deployment time by 70% and steps from 11 to 4.
- Integrated Next.js frontend with optimized PostgreSQL backend, implementing tag-based IaC search that improved retrieval speed by ~50% and enhanced overall data handling efficiency.
- **Technologies**: Next.js, FastAPI, AssistantAPI, Zilliz Cloud, Postgres, Cloud Run (GCP)

BrainWash ✎
Laundry Solution App for University Students
- Redesigned the project architecture, improving system scalability and reducing average response time by 45%.
- Introduced dedicated contexts and APIs to enhance Customer and Washer functionalities, improving user experience and reducing the need for manual intervention by 30%.

- **Technologies:** React Native, React Query

Othello AI Agent
Heuristic and Rule-Based Game Decision System
- Built an AI agent for Othello using minimax with alpha–beta pruning and heuristic evaluation to optimize move selection.
- Enhanced search efficiency with adaptive depth control for faster real-time decision-making.
- **Technology:** NumPy, Flask, JavaScript, Bootstrap

Achievements

- Winner – **TechFest'2024** Speed Programming: Secured 1st place among 40+ teams in an algorithmic problem-solving competition. ✐
- Section Leader – **Stanford Code-in-Place 2025**: Selected to lead and mentor global participants in Python programming and Problem-Solving fundamentals. ✐
- Top 15% – **LeetCode** Contest Ranking: 8 Profile badges recognized for advanced problem-solving and algorithmic proficiency. ✐
- **GRE** Quantitative Reasoning – Perfect Score (170/170, 94th Percentile Overall): Demonstrated exceptional quantitative skills. ✐
- 95th Percentile – **National Standardized Quality Measurement Test**: Demonstrated exceptional analytical aptitude. ✐
- **Harvard Puzzle Day 2025**: Solved 9/9 puzzles, ranked among top teams in logical reasoning & collaboration. ✐

Volunteer and Teaching Experience

Graduate Teaching Assistant ✐   Aug 2025 – Present | Ames, US
Introduction to Programming and Problem Solving– COMS 1270
- Mentoring and guiding 65+ students in Python programming and problem-solving, providing support through labs, office hours, and individualized feedback.
- Facilitate understanding of algorithms and coding concepts, improving student engagement and learning outcomes in a large classroom setting.

Moderator & Trainer – iCodeGuru ✐   Oct 2023 – Jul 2025
- Delivered a 3-month GRE course to underprivileged students, significantly improving participants' quantitative and verbal skills.
- Conducted multiple comprehensive GRE workshops and DSA & LeetCode sessions, guiding students in competitive programming and exam strategies.

Co-founder – QubtiCoders ✐   Nov 2023 – Jul 2024 | NED UET, Karachi
- Established a competitive programming community of 100+ members, promoting engagement in algorithms, contests, and coding challenges.
- Organized workshops, mentorship sessions, and coding competitions to strengthen peer learning and skill development.

Skills

Languages: Python, JavaScript (ES6+), TypeScript, Java, PHP, SQL, Verilog, CUDA

Backend & Frameworks: FastAPI, Flask, Laravel, RESTful APIs, OpenMP, MPI, Docker, Gunicorn, Uvicorn, PostgreSQL, MySQL, GCP Cloud Run

Web & Mobile: React.js, Next.js, React Native, Redux, React Query, Tailwind CSS, HTML5, CSS3, Bootstrap 5, Chakra UI, Ant Design

AI & ML: LangChain, OpenAI/Anthropic/Gemini API, Hugging Face Transformers, Qdrant, pgvector, Scikit-learn, Retrieval-Augmented Generation (RAG), Tool-Calling, Pandas, NumPy, Matplotlib, AWS Bedrock

Development & Collaboration: Git, GitLab, Bitbucket, Microservices Architecture, Containerization, Prompt Engineering, Agile Methodologies