

Meng Gao

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EDUCATION

Columbia University

Sep 2024 - Dec 2025

Master of Science, Computer Science (GPA: 3.76/4.00)

- **Department:** Fu Foundation School of Engineering and Applied Science
- **Coursework:** Natural Language Processing, Cloud Computing, Database, Computer Vision, User Interface Design

The Ohio State University

Aug 2021 - Aug 2024

Bachelor of Science, Computer Science and Engineering (GPA: 3.77/4.00)

- **Department:** Department of Computer Science of Engineering

PROFESSIONAL EXPERIENCE

Amazon Web Service

Jun 2025 - Sep 2025

Software Developer Engineer Intern

Arlington, VA

- Architected URL persistence feature to enhance user experience, leading to a 40% increase in link sharing among users
- Developed a sub-filtering function under the global filter, enabling more precise data discovery and resulting in a 20% increase in positive user feedback.
- Refactored hard-coded configurations by implementing AWS AppConfig for dynamic management, which enhanced code quality, reduced CI/CD pipeline load, and enabled instant deployment of emergency notifications.
- Engineered an agile release and rollback framework using AWS AppConfig Feature Flags; this enabled safe, in-production testing by delivering differentiated views to developers and users, ultimately boosting team deployment velocity and agility.
- Engineered a distributed caching layer using Redis to resolve data retrieval bottlenecks in AWS Lambda and AWS Glue. By implementing the Cache-Aside Pattern, reduced external API calls by over 90%, significant decrease in operational costs.
- Authored and integrated over 40 integration tests to automatically detect edge cases prior to deployment, eliminating 3 hours of manual testing effort per release cycle.

Columbia Build Lab

Feb 2025 - May 2025

Full Stack Developer Intern

New York, NY

- Engineered a full-stack MVP for an early-stage startup using React and Flask, enabling the client to secure initial user feedback and demonstrate core functionalities to investors.
- Led the architectural design and implementation of a high-concurrency, real-time data ingestion layer. By leveraging WebSocket persistent connections, enabled the stable, low-latency reception of massive-scale device monitoring data.
- Established a complete CI/CD pipeline using GitHub Actions, integrating automated unit tests, end-to-end (E2E) testing with Cypress, and automatic deployments. This ensured the quality of all code merged into the main branch and reduced production failures caused by code changes by 90%.

Edu Technologic, LLC

May 2024 - Aug 2024

Web Developer Intern

Columbus, OH

- Drove the responsive development of the website, ensuring functional integrity and visual consistency across all mobile devices (phones, tablets), which significantly enhanced the cross-platform user experience and brand presentation.
- Resolved a critical performance bottleneck caused by excessive DOM elements by implementing viewport-based rendering. Achieved instant loading and smooth scrolling for complex data pages, significantly improving user satisfaction.
- Enhanced application consistency and code reusability by refactoring duplicated UI elements into configurable, shared components, establishing a solid foundation for long-term scalability and rapid development.

PROJECTS

Speech Emotion Recognition Pipeline

Sep 2024 - Dec 2024

- Built an end-to-end machine learning pipeline to classify 7 emotion categories from speech audio using Scikit-learn.
- Engineered acoustic features (Pitch, Intensity) using Parselmouth and extracted IS09 feature sets via openSMILE.
- Implemented and evaluated multiple classifiers (SVM, Random Forest, MLP); optimized an SVM with RBF kernel to achieve best performance through hyperparameter tuning.

Food Search Web

May 2024 - Aug 2024

- Integrated Elasticsearch for efficient menu management and enhanced search capabilities.
- Built an intelligent AI chatbot using OpenAI APIs, supporting personalized dish recommendations and natural language Q&A to increase user engagement.
- Implemented entity extraction and fuzzy matching techniques to accurately identify menu items from user queries, and utilized retrieval-augmented generation (RAG) to ground AI responses in real-time database information, ensuring answer accuracy and reliability.

TECHNICAL SKILLS

- **Languages:** Java, Python(PyTorch), SQL, C/C++, C#, JavaScript, CSS, MATLAB
- **Frameworks & Tools:** React, Angular, Linux, Git, Docker, Elasticsearch
- **Cloud & Databases:** AWS (EC2, S3, RDS, Lambda, Glue, AppConfig, CodePipeline, CloudFront), GCP, MySQL, MongoDB