MINSEOK KIM

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EDUCATION

New York University Abu Dhabi (NYUAD)   *Graduation Expected in May 2026 (Senior)*
- Bachelor of Science: Major in **Computer Science,** Minor in **Applied Mathematics.**   GPA: 3.71 / 4.0
- Relevant Coursework: Machine Learning, Data Structures, Algorithms, Human-Centered Data Science, Probability and Statistics, Computer Vision, Computer Networks, Advanced Topic in AI and ML, Software Engineering, Discrete Mathematics, Computer System Organization, Operating Systems, Modern Software Engineering Practices, Projects in Programming and Data Science, Arabic Computational Linguistics, Computer Programming for Engineers, Multivariable Calculus, Linear Algebra, Ordinary Differential Equations

PROFESSIONAL EXPERIENCE

Research Assistant   *Jan 2026 – Current*
eBRAIN Lab – New York Univeristy Abu Dhabi   Abu Dhabi, UAE
- Worked on LLM Jailbreak Security research project, focusing on multimodal LLMs (MLLM).

Software Engineering Intern   *Jun 2025 – Aug 2025*
XBTO Trading (xbto.com)   New York, USA
- Engineered and deployed a real-time performance monitoring system, leveraging Prometheus and Grafana to visualize competitor rankings and individual cryptocurrency scores.
- Maintained and debugged a core data pipeline ingesting purchased raw market data as Oracle data engineering team member, managing the deployment of distinct processing jobs to ensure data integrity and system reliability.
- Conducted data collection and analysis by web scraping competitor and asset performance data, providing key insights to improve external company rankings in cryptocurrency publishing.

Full Stack Developer   *Feb 2025 – May 2025*
Swop Holdings   Dubai, UAE
- Joined as an preseed-stage team member, contributing directly to mobile app product vision and VC investments.
- Migrated core data infrastructure from Firebase to AWS RDS, including database design, data migration, and refactoring backend endpoints.
- Managed data operations: cleaned and structured product data from onboarding partners and ensured accurate ingestion into the relational database.

Software Engineering Intern   *Apr 2024 – Jul 2024*
Liwa Capital (liwacap.com)   Abu Dhabi, UAE
- Developed an AI-powered software that eliminates the need to check hundreds of emails daily by processing emails, update schedules, and group tasks, significantly enhancing team productivity.
- Integrated OpenAI's LLM for email processing for actionable task insights using Python.
- Automated secure workflows by incorporating Microsoft Graph API for seamless and secure data handling.

Back End Developer   *Aug 2021 – Oct 2021*
IT BAND   Daejeon, South Korea
- Renovated the official website for the Korea Maritime Transportation Safety Authority, optimizing performance and modernizing the user experience. (*komsa.or.kr*)
- Focused on optimization and debugging, reducing load times and resolving critical errors in the backend to improve performance and reliability.
- Refined backend systems using Java Spring framework, Oracle, HTML, and JavaScript.

KEY PROJECTS

Brainlot: Infinite Scroll Learning Platform (*https://tinyurl.com/app-brain-lot***)**
Backend, Mobile App, Database
- Co-founded and launched an iOS application with over 400 downloads, featuring an infinite vertical scrolling interface that automatically transforms user-uploaded documents into a continuous stream of interactive, gamified multiple choice quizzes.
- Engineered the endless quizz generation pipeline in the background to support continuous scrolling, alongside a flexible inference architecture that allows users to toggle between cloud-based and offline local LLMs.
- Selected for the NYUAD startup incubator to accelerate product growth with professional guidance, validating the platform's potential and uniqueness in the market.

Foodify: Social Platform for Trending Restaurants (*foodify.cc***)**
Backend, Web App, JavaScript (React), Python, Web Scraping, Database
- Built a social platform where users can swipe to discover trending restaurants, like and share lists, and explore popular recommendations.
- Made it easy for users to connect over shared taste while helping small businesses get discovered through social media–like experience.
- Scraped data from Yelp and Google Maps, managed the data using Firebase.

SenseFit: Automatic Cursor Sensitivity Adjust Tool (*github.com/MinseokKim0813/Sense_Fit***)**
Software Engineering, Python, PyQt5, pytest
- Developed a desktop application that tracks real-time cursor data and analyzes movement patterns to calculate and suggest optimal mouse sensitivity (DPI) for users.
- Engineered complex analysis algorithms to identify and quantify suboptimal behaviors, including complex cursor movement patterns to generate data-driven recommendations.
- Ensured high reliability by achieving over 90% unit and system test coverage using pytest.

DeepGenre: Deep Learning Model for Movie Genre Classifier (*github.com/MinseokKim0813/DeepGenre***)**
Machine Learning, Computer Vision, Pytorch, Python
- Developed a multi-label CNN model to predict movie genres across 28 distinct classes based on the movie poster.
- Achieved 59.98% precision, outperforming by 16.8 times against the random baseline precision of 3.5% and confirming robust transfer learning capabilities in complex visual recognition tasks.
- Eliminated predictive bias prevalent in other models stemming from movie titles by utilizing OCR and in-painting to remove text, ensuring classification relied solely on visual artwork rather than linguistic clues.

SKILLS

- Programming: Python, C++, C, Assembly, Java, JavaScript, HTML, CSS, SQL, YML, RegEx, PyTorch, Prometheus, node.js, React.js, REST API, pytest, Express, Spring, Flask, FastAPI, Selenium, NumPy, asyncio, Pandas
- Tools & Platforms: Grafana, ArgoCD, Aptakube, AWS RDS, Firebase, FlutterFlow, MongoDB, Git, Figma, Docker, MATLAB, GitHub, GitLab, GitKraken, Wireshark