Khabibillo Gulomov

AI Engineer and Researcher · LLMs, retrieval-augmented generation, LLM evaluation

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EDUCATION

Kyungpook National University, Daegu, South Korea Expected Aug 2027

B.S. in Computer Science and Engineering, College of IT Engineering

- KNU Best Student Scholarship, awarded twice (top ~7%)
- Focus: AI, natural language processing, information retrieval

PUBLICATIONS

1. **K. Gulomov**, "Evidence Position Sensitivity Across Document-Count Conditions in Multi-Document QA," *7th Korea Artificial Intelligence Conference (Korea AI 2026)*, KICS, Jeju, Korea, Sep–Oct 2026. Sole author. **Outstanding Paper Award (우수 논문).**
   - Controlled study of how the position of supporting evidence affects multi-document QA at 8, 10, 15 and 20 documents, with total input length held fixed.
   - 6 LLMs from 3B to 72B (Llama 3.2/3.3, Qwen2.5, Gemma 2/3); 24 conditions with 2,417 examples each.
   - 72 document-count contrasts tested with paired bootstrap and sign-flip tests: the best evidence position is model-dependent and shifts with document count and hop count.
2. M. Olimjonova, **K. Gulomov**, H. Lee, D. Kim, "Safe Automation of Administrative Document Pre-Checks through Cross-Document Verification," *19th Symposium on Ubiquitous Computing and Web Information Technology (UCWIT 2026)*, KIISE, Daegu, Korea, Nov 2026. *Submitted.*

EXPERIENCE

Founder and Lead Software Engineer, Mahallify 2025 – Sep 2026

Tashkent, Uzbekistan · Location-based platform for discovering local communities, activities and meetups (mahallify.com)

- Designed and built the backend services, REST APIs and real-time messaging with NestJS, Socket.IO and Redis.
- Cut public meetup-feed latency by 38% and SQL execution time by 24% through PostgreSQL indexing and query rewrites.
- Refactored the monolith into a modular Clean Architecture; ran the full platform end to end (Next.js, PostGIS, Prisma, Docker).
- Ranked in the top 5% of UzCombinator applicants.

Undergraduate Researcher, Data and Language Intelligence Lab Jun 2026 – Sep 2026

Kyungpook National University

- Reproduced Search-R1 search-augmented reasoning on 7 QA benchmarks (NQ, TriviaQA, PopQA, HotpotQA, 2WikiMultiHopQA, MuSiQue, Bamboogle).
- Evaluated retrieval-based reasoning (SeaKR) and tool-augmented LLMs (ToolBench / ToolLLM), focusing on tool selection and reliability.
- Built experiment and evaluation pipelines in Python with PyTorch, Hugging Face and vLLM, including significance testing.

Undergraduate Tutor, Programming Fundamentals (C) Sep 2026 – Present

Kyungpook National University

- Support students in twice-weekly C lab sessions: pointers, arrays, functions, sorting and debugging.

Microsoft Student Ambassador, Microsoft 2026 – Present

- First Uzbek Microsoft Student Ambassador in South Korea; mentored and supported 50+ students and developers in AI and software development.

PROJECTS

ADVS: Administrative Document Pre-Check System Sep 2026 – Dec 2026

KNU Capstone Design Project, industry-mentored by Flash21 · Team of 2: backend, OCR pipeline and evaluation (me); frontend (teammate) · github.com/khabibro/ADVS

- Built a system that pre-checks administrative submissions (business registration, tax and insurance certificates, enrollment certificates, transcripts) and returns Ready, Needs correction or Needs review, with a reason for every issue.
- Designed an evidence-based acceptance policy: an OCR value is accepted only when an independent source confirms it (another document, a check digit, a validity period, or the applicant's input).
- On real documents, made 71.8% of business submissions (56/78) fully automatic and 84.6% ready after at most one staff confirmation, with 0 wrong values accepted and 0 wrong approvals.
- Cut open items per submission from 6.9 to 0.63 (business) and from 8.19 to 3.50 (student); validated safety with 6,815 error-injection cases and manipulated-PDF tests.
- Built an admin rule editor with versioning, change history and rollback.

Tech: Python, PaddleOCR (PP-OCRv5), REST API, TypeScript, React, Playwright

HONORS AND AWARDS

Outstanding Paper Award (우수 논문), Korea AI 2026, KICS 2026
KNU Best Student Scholarship, Kyungpook National University, awarded twice (top ~7%)
Top 5% of applicants, UzCombinator (Mahallify)

SKILLS

Programming	Python, C, C++, TypeScript, JavaScript
AI / ML	PyTorch, Hugging Face, vLLM, RAG, information retrieval, LLM evaluation, AI agents, PaddleOCR, statistical testing
Backend and web	NestJS, FastAPI, Next.js, React, PostgreSQL / PostGIS, Prisma, Redis, Socket.IO
Tools	Docker, Linux, Git, GitHub, Playwright
Languages	Uzbek (native) · English (full professional) · Korean (full professional, TOPIK Level 5) · Russian (limited working)

RESEARCH INTERESTS

Evidence-grounded and reliable LLMs, retrieval- and search-augmented reasoning, multi-document QA, LLM evaluation, tool-augmented agents.