LUKA ALADASHVILI
SOFTWARE ENGINEER

✉ luka.aladashvili.work@gmail.com   🌐 LinkedIn Profile   ⬦ GitHub Profile   🖥 LeetCode Profile

Top 0.01% National Math Champion and **ICPC Northern Eurasia Finalist** with a strong foundation in **Computer Science and Software Engineering**. Experienced in building **scalable** backend systems, **high-performance** engines, and cloud infrastructure. A proactive engineer who bridges the gap between complex algorithms and production-ready code, with a proven track record of securing **AWS partnerships** and leading engineering teams. Passionate about **Open Source**, **system architecture**, and **mentoring the next generation of developers.**

WORK EXPERIENCE

Co-founder & Lead Engineer | 2025 - PRESENT
Fincast (AI-Powered Valuation Platform)

- **AWS Partnership:** Secured acceptance into the AWS for **Startups program,** leveraging cloud credits to scale infrastructure.
- Engineered a **high-performance C**++ inference engine processing **5,000**+ **dat**a points/sec with **<200ms latency.** Optimized the **data pipeline** and **memory layout.**
- Developed custom **clustering and deterministic validation logic** to mitigate LLM hallucinations, improving valuation accuracy by **30%**
- Led engineering team; set up **CI/CD, code reviews**, and **production monitoring.**

Software Engineer(Contract/Freelance) | 2023 - PRESENT

- Built and maintained backend systems in **Java, C, C**++ and **Python**. Managed distributed engineering projects, coordinated remote technical workshops.
- Refactored performance-critical **C**++ and **Java modules**, optimizing memory allocation to achieve a **30% efficiency gain.**

Teaching Assistant - **Programming Methodologies** | 2025 - PRESENT
Free University of Tbilisi

- Mentoring 40+ undergraduate students in C++ and Java, focusing on **Software Design Patterns** and **Memory Management.**
- Conducting deep-dive **code reviews** and **optimizing** student implementations for **algorithmic complexity** and **scale**.

EDUCATION

FREE UNIVERSITY OF TBILISI
Mathematics and Computer Science bachelor
GPA: 3.9 / 4.0
Sep 2024 - Present

GAIA
AI Development and Research
Apr 2025 - Present

SKILLS

Core Languages
- C++ (High Performance)
- C (Systems / Low-level)
- Java (Enterprise)
- Python (ML/Backend)
- Scheme
- RISC-V Assembly

Engineering
- System Design
- Docker
- CI/CD
- GIT
- Valgrind
- Design Patterns

TECHNICAL PROJECTS

High-Concurrency Banking Ledger
Architected a thread-safe transaction engine with zero data races (Helgrind verified), utilizing fine-grained locking and custom barriers for ACID consistency.

Pthread Deadlock Detector
Engineered a runtime library that intercepts mutex calls to build a Resource Allocation Graph, detecting deadlocks and circular waits in real-time.

NewsHound: RSS Indexing Engine
Built a high-performance aggregator parsing XML feeds into an in-memory Inverted Index, achieving O(1) search speeds via custom HashSets.

ACHIEVEMENTS

- **ICPC Northern Eurasia Finalist (High Achievement Award)**
Represented Free University in one of the **world's most competitive algorithmic regions**.

- **National Champion (1st Place) - Bank of Georgia STEM Competition**
Outperformed **1,000+ participants** in a **nationwide STEM competition.**

- **Top 0.01% nationally**
Ranked **4th out of 40,000** students in the Georgian National Mathematics Exams.

- **Impel AI Emerging Professional Grant**
*Selected for **technical innovation**; awarded a research/development grant for excellence in AI.*

- **Grand Prize Winner - International AI in Finance Hackathon**
Engineered a winning AI-driven investment matchmaking platform against global competitors.