ZHUMAKHAN NAZIR

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ACADEMIC BACKGROUND

M.Sc in Computer Science, Nazarbayev University *May 2024*
B.Sc in Computer Science, Nazarbayev University *May 2021*

- Interpretable ML enhanced Performance Analysis of cuBLAS, cuDNN and TensorRT [ACM SAC'23]

- A CNN Inference micro-benchmark for Performance Analysis and Optimization on GPU [IEE SMC'22]

- A Machine Learning Model Selection considering Tradeoffs between Accuracy and Interpretability [ASTES journal'22]

- Dean's list award for Spring semester (2022)

- 1 st place in V Yassawi Republic Olympiad in physics (2016)

- 3 rd place in regional olympiad physics (2015)

TECHNICAL STRENGTHS

- Linear Algebra, Probability, Graph Theory, Numerical Methods, Convex Optimization

- C/C++, Python, SQL, redis, Tibco EMS, kafka, prometheus, grafana, websockets, django, fastapi

- docker, git, CI/CD, jenkins, OpenMP, POSIX thread, CUDA programming, TensorRT, pytorch

WORK EXPERIENCE/PROJECTS

ML Research Engineer intern at Ivy (unify.ai) Dec'22-current *London, UK (remote)*

- Implementing various machine learning/linear algebra functions. Developing, testing and optimizing graph compiler of ivy framework. Adding parser that converts Ivy model into TensorRT engine.

Machine Learning intern at Verigram.ai, Dec'22-Feb'23 *Almaty, Kazakhstan*

- Apply quantization techniques for face recognition model to increase speed in CPU using OpenVino. Apply model interpretability methods to explain anomalies in the model's detection. Test effect of brightness, noise level, background objects and crop methods to the accuracy.

Software Engineer Intern at Meta (Facebook), Jul-Oct 2022 *London, UK*

- Improved the accuracy and stability of location finder algorithm using bluetooth signals by center of mass method. Added new functionalities to admin panel of office devices.

Teaching assistant for GPU programming class, Jan-May 2022 *Astana, Kazakhstan*

- Graded assignments, hosted QA sessions, troubleshooted programming issues

Python Developer, Feb 2020-Aug 2021 *Kazakhstan*

- At Kaspi Bank(May-Aug 2021): Developed master data management system in kotlin; integrated prometheus+grafana monitoring; optimized java+spring projects for performance and readability;

- As a freelancer (Feb 2020-Sep 2020): Informative website on reproductive health (shyn.kz). Online educational platform initiated by UNFPA (srh.org.kz)