

Albert Mukhametov

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EDUCATION

- **University College London (UCL)** London, UK
Bachelor of Science in Computer Science; Grade Achieved: 1st Class
 - Relevant modules taken: AI & Neural Computing, Software & Systems Engineering, Concurrency & Architecture, Security, Logic & Database Theory, Mathematics & Statistics, Networking Systems, Compilers

EXPERIENCE

- **Software Engineer** London, UK
Checkout.com September 2022 - Present
 - Engineered distributed and **highly available** backend applications in C#/.NET, leveraging key AWS services (EC2, ECS, ECR, Kinesis, Lambda, SNS, SQS) to establish a robust infrastructure supporting core **low-latency** and high-throughput systems processing over **2.5B transactions** annually
 - Led the development of **real-time**, low-latency features for the fraud detection ML model. Significantly contributed to identifying and preventing rapid fraud attacks on high transaction volume merchants, resulting in a **5.9% recall increase** at **20% precision**
 - Reduced latency (P99) by **30ms** for the **critical ML feature lookup** service. Achieved through the strategic optimisation of the Redis velocity data model and feature lookup algorithm
 - Orchestrated the implementation of **end-to-end audit logging** for dynamic changes to merchant risk strategies using Lambda, Kinesis, and OpenSearch. Resulted in a **reduction in support tickets** and streamlined operational efficiency
- **Data Scraping & Analytics Start-Up - Co-Founder** London, UK
LodusLabs May 2020 - September 2022
 - **Collaboratively developed** data mining infrastructure to gather current & historic video-game statistics for over **35,000** games and **20,000** game developers through time-triggered web-scrapers using Microsoft Azure Functions
 - Delivered a reliable **back-end structure** for data storage leveraging SQL Server, deployed on Digital Oceans' Droplet cronjobs
 - Currently in partnership with **Amazon's subsidiary - IGDB**
- **NLP & Data Mining Research - Intern** (GitHub) London, UK
University College London June 2021 - September 2021
 - Leveraged **Latent Dirichlet Allocation** (LDA) & **Support Vector Machine** (SVM) algorithms to classify 200,000+ publications and 300,000+ researchers across the institution
 - Established reliable data mining engine and **data processing** infrastructure, deployed on Microsoft Azure
 - Delivered usable front-end using Django framework for **data visualization** (t-SNE clustering, Intertopic Distance Map, Bubble chart), analysis & validation
 - The tool is used by researchers for annual mapping of ongoing **Sustainable Development Goals activity**, as well as author extraction for inter-disciplinary and cross-departmental collaboration evaluation
- **Software Engineer - Intern** Baku, Azerbaijan
Nikoil Bank November 2017 - March 2018
 - **Redesigned** the national (Azerbaijani) credit registry of the Nikoil Bank in a fast-paced team of six developers
 - **Advanced** Java implementation of the monitoring system for the ATM's across the capital city of Baku

TECHNICAL SKILLS & LANGUAGES

- **Languages & Tools:** C#/.NET, Python, C, Java, Haskell, AWS, MS Azure, Django, Docker, Octopus Deploy/TeamCity, Redis, MongoDB, OpenSearch, MS SQL Server, PostgreSQL, Git, Algorithms, Data Structures, HTML5/CSS
- **Russian:** (Native or Bilingual Proficiency), **English:** (Native or Bilingual Proficiency) **Mandarin:** (Elementary Proficiency)

PROJECTS

- **Java Shell (JSH)2021** (GitHub)
 - **Refactored** Java Shell implementation, leveraging Antlr to create an input parse tree
 - As part of **TDD** conducted the following: system acceptance, **99%** Jacoco branch coverage, JUnit, JumbleJ mutation tests
 - Developed pipe, sequence, call, input redirection, input substitution, as well as an unsafe version for each application
- **Computer Vision2020** (GitHub)
 - Implemented a depth map using a stereo-matching algorithm following the **dynamic programming** optimisation method
 - Integrated colour gradient to infer the relative distance to the object and its captured surroundings