### SULTANGAZY YERGALIYEV

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### **Profile**

• Highly analytical and motivated Software Engineering graduate with a specialization in Cloud Computing, seeking a position as a Softare Engineer. With a strong engineering background, proficiency in Python, C++, and a keen interest in systematic trading, I aim to contribute to the development and implementation of automated trading strategies.

### **Experience**

# **City University of London**

London, July 2022 - Dec 2022

### Research assistant, Intern

- Collaborated on a groundbreaking project that focused on the dimensional reduction of pruned convolutional neural networks for optimization, using 2 open-source datasets (MNIST and CIFAR-10).
- Conducted literature reviews, data collection, and analysis with approximately 30 related research papers.
- Contributed to experiments to preserve accuracy while reducing the number of parameters, achieving a 60% reduction in network size.
- Achieved a 60% reduction in convolutional neural network size.
- Reduced model complexity, resulting in a 30% increase in training speed and efficiency.
- Improved performance and efficiency of neural networks by 45%.
- Used PyTorch, matplotlib, and Scikit-Learn. [link]

# VoltUp

Remote, Saudi Arabia, March 2023 - July 2023

### **Backend Engineer, Intern**

- Cooperated with a cross-functional team of 3 individuals to define REST API endpoints and data models, resulting in a 20% improvement in communication efficiency between the backend and frontend.
- Designed a microservice for real-time data monitoring and visualization within a 1-month timeframe.
- Employed PHP for API handling, streamlining communication with backend services, and reducing API response times by 25%.
- Engineered a visually appealing front end using Bootstrap and HTML/CSS.

### **Education**

# City, University of London

London, Oct 2021 - Feb 2023

- MSc Software Engineering and Cloud Computing, Merit
- Relevant Coursework: Big Data, Cloud Web Application (GCP, Node.js), Knowledge Graph and Embedding, Dimensional Reduction on Pruned Neural Network (Internship)

## The University of Westminster

London, Sep 2016 - June 2019

- BSc Computer Games Development
- Relevant Coursework: Unity: Pathfinding algorithms (Dijkstra, A\*), Car parking management system (C++), Rogue-like text-based game (C++)

# **Technical Skills**

- Programming Languages: C++, Python, JavaScript, HTML/CSS
- Libraries: TensorFlow, Scikit-learn, PyTorch, Pandas, NumPy, MatplotLib, Pickle, SDK2, bullet3
- Developer Tools: GCP, AWS, Docker, Kubernetes, Git, Linux, CMake, CUDA, Conan, Bash, PowerShell
- Frameworks: Node.js, React.js, Bootstrap, Django, FastAPI, Vulkan
- Databases: SQL

### **Projects**

### Python-based p2p communication system:

- Developing a scalable P2P system using P2PPython for efficient, decentralized data exchange
- Focusing on pure Python implementation for network efficiency and secure data transmission.
- Implementing core networking protocols and user-friendly interface for peer interactions.
- Creating a Command-Line Interface to incorporate an easy and automative approach. [link]

### **Cloud-Based Expense Tracker Application:**

- Launched a 100% functioning Expense Tracker web app for monitoring and visualizing expenses by category.
- Contributed to both client and server-side development in a team of 2 people.
- Completed the Expense Tracker web app development within a 2-week timeframe.
- Enhanced user experience with visually appealing front-end design by 60%.
- Utilized Node.js, MySQL, HTML, Bootstrap, Docker, and AWS. [link]

### Low-level game-dev environment:

- Developing a game development environment that will help get started to make games.
- Utilizing Docker containers to ensure compatibility and stability in any system during development.
- Continuously developing and optimizing the project to produce an open source for the community.
- Tech stack: C++, CMake, Conan, Docker, Vulkan, Bullet3, SDL2, Linux [link]

*Note: The project is still in progress, and I am actively working on enhancing its features.*