Adam Elhamdi

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EDUCATION

University of Texas at Austin   Austin, TX
Economics B.S., Computer Science Minor   *August 2021 – May 2025*

EXPERIENCE

Software Engineer Intern   May 2024 – August 2024
Cisco Systems - Duo Security   *Remote*
- Improved an internal performance testing tool by adding a feature using **Python**, **AWS**, and **MySQL** to dynamically create simulated customers and generate realistic HTTP requests.
- Executed load testing suites on a simulated production environment to validate software release performance metrics using **Argo Workflows**, **Datadog**, **Grafana**, and **Kibana** dashboards.
- Identified and **resolved several bugs** in **Kubernetes** deployments, **Docker** containers, and documentation.

Software Engineer Intern   May 2023 – August 2023
TikTok   *Remote*
- Engineered algorithms and Data Structures in **C++**, **Java**, and **Go** on **distributed systems** to scatter similar products in recommendation feeds, **increasing user engagement metrics by 9%** .
- Developed and implemented **APIs** within the ads infrastructure to integrate product information from videos and livestreams into TikTok's ad recommendation system, leading to a **13% increase in ad conversion rates**.
- Led A/B experiments on over **800 million users**. Analyzed user behavior and ads performance using **SQL**, **Spark**, and **statistics methodologies**. Achieved a **7% improvement** in both user experience and ads value metrics.

Data Science Intern   June 2022 – August 2022
Uber   *Remote*
- Developed and executed **SQL** queries to analyze fare revenues across different regions and products, providing actionable insights and optimizing pricing strategies.
- Contributed to the design and implementation of frontend functionality, designed to ensure seamless user experiences and effective data visualization.
- Worked closely alongside cross-functional teams delivering data-driven solutions, balancing backend data analysis with frontend development to support business objectives and enhance decision making processes.

RESEARCH

Applied Machine Learning Lab Research Assistant | *PyTorch, Kubernetes* September 2022 – Decemeber 2022
Oden Institute for Computational Engineering and Sciences
- Contributed to two projects in **cognitive electrophysiology** and **data science**.
- Designed and implemented various **convolutional neural network architectures** to make predictions based on time-series data with **PyTorch**.
- Distributed model training in a cloud GPU cluster with **Kubernetes** to reduce training time by **50%**.

PROJECTS

Distributed Key-Value Store | *Go, Git Docker*   February 2023 – Present
- Developing the back-end API of a distributed, fault tolerant, consistent, and sharded key-value store.
- Utilizing Goroutines for concurrency when handling client and internal HTTP requests for system communication.

TagMe | *Electron, Go, Git, Node.js, HTML/CSS*   January 2022 – March 2022
- Worked in an Agile team to make a cross platform, **full stack desktop application** to search files by custom tags.

- Responsible for UI and frontend functionality, designed and implemented backend unit tests in Node.js.

TECHNICAL SKILLS

Languages: Java, Python, C, C++, SQL, JavaScript, R, Go, HTML/CSS
Frameworks: Agile, Gin, Keras, NumPy, Pytorch, React, TensorFlow, pandas, scikit-learn
Developer Tools: Docker, Git, Google Colabs, Jupyter Notebooks, Kubernetes, Linux/Unix, MySQL, PostgreSQL
Libraries: pandas, NumPy, Matplotlib