ABDULLA JASEM ALMANSOORI

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RESEARCH OBJECTIVE

My research focuses on optimization in machine learning, with a particular interest in efficient and collaborative learning under the context of personalized federated learning. I aim to develop solutions to real-world challenges involving private data sources, such as in healthcare.

EDUCATION

Mohamed bin Zayed University of Artificial Intelligence

Abu Dhabi, UAE

PhD in Machine Learning (Supervisor: Martin Takáč & Samuel Horváth)

(Aug 2021 - Present)

- · Research: optimization, federated learning, generative models, representation learning.
- · Courses: optimization, advanced machine learning, probabilistic and statistical inference.

University of Southern California

Los Angeles, CA

MS in Computer Science

(Jan 2017 - Dec 2018)

· Courses: artificial intelligence, machine learning theory, robotics, algorithms, databases, computer architecture, operating systems, web technologies.

Purdue University

West Lafayette, IN

BS in Industrial Engineering (with distinction)

(Aug 2012 - May 2016)

· Courses: probability, statistics, multivariate calculus, linear algebra, differential equations, discrete math, real analysis, abstract algebra, linear programming, stochastic processes, control systems.

WORK EXPERIENCE

UAE National Service

(Feb 2021 - Jun 2022)

· Finished army boot camp. Worked as a security guard in Dubai International Airport and Al Maktoum International Airport, and as a vehicle inspector in Expo 2020.

New York University (NYUAD)

Abu Dhabi, UAE

Research Assistant (PI: Kris Gunsalus)

(Jan 2020 - Feb 2022)

· Supported AI research with the core bioinformatics team, focusing on building and deploying containerized deep learning models on a high-performance cluster using Slurm, gaining experience in computational biology workflows. Ran simulations of outbreaks in small communities with custom testing strategies (with Francesco Paparella).

PUBLICATIONS

Conference

Byzantine-Tolerant Methods for Distributed Variational Inequalities. (2023)
 Nazarii Tupitsa, Abdulla Jasem Almansoori, Yanlin Wu, Martin Takáč, Karthik Nandakumar,
 Samuel Horváth, Eduard Gorbunov. Neural Information Processing Systems (NeurIPS).

Journal

1. PaDPaF: Partial Disentanglement with Partially-Federated GANs. (2024)

Abdulla Jasem Almansoori, Samuel Horváth, and Martin Takáč. Transactions on Machine Learning Research (TMLR).

2. Stochastic Gradient Methods with Preconditioned Updates. (2024)
Abdurakhmon Sadiev, Aleksandr Beznosikov, **Abdulla Jasem Almansoori**, Dmitry Kamzolov,
Rachael Tappenden, and Martin Takáč. Journal of Optimization Theory and Applications (JOTA).

Under Review

1. Collaborative and Efficient Personalization with Mixtures of Adaptors. (2024)

Abdulla Jasem Almansoori, Samuel Horváth, and Martin Takáč.

ACADEMIC SERVICE

- · Teaching Assistant at MBZUAI: (i) ML701: Machine Learning (Fall 23, Fall 24), (ii) ML802: Advanced Topics in Machine Learning (Spring 24).
- · Conference reviewer: (i) NeurIPS 2022, 2023, 2024, (ii) ICML 2023, 2024, (iii) ICLR 2023, 2024, 2025, (iv) ICOMP 2024, (v) TMLR.

ACHIEVEMENTS

- · Best Reviewer Award, ICML 2024.
- · Project Coordinator, MBZUAI Executive Program, 2023.
 - \rightarrow Coordinated an AI strategy project with executive participants.
- · Kawader Research Assistantship, NYUAD, 2020.
- · Phi Beta Kappa Society, Purdue University, 2016.
- · Distinguished Students Scholarship, UAE Scholarships Office, 2012.
 - \rightarrow The UAE's most prestigious academic scholarship.

SKILLS

Programming Languages Python, C, Shell, Haskell, Javascript Machine Learning PyTorch, flwr, NumPy, Matplotlib, pandas

Tools Slurm, Docker, Git, LATEX

Languages Arabic (native), English (fluent), Japanese (JLPT N3),

Italian (conversational)

REFEREES

- · Martin Takáč, Associate Professor, MBZUAI: martin.taki@gmail.com.
- · Samuel Horváth, Assistant Professor, MBZUAI: samuel.horvath@mbzuai.ac.ae.
- · Nizar Drou, Core Bioinformatics Lead Developer, NYUAD: nizar.drou@nyu.edu.