

Tarek Morsi

Paris, France • tarek@tarekmorsi.com • linkedin.com/in/tarekmorsi • tarekmorsi.com

AI Master's student at CNAM with 5+ years of software engineering experience in distributed, cloud-based systems. Passionate about applied machine learning, federated learning, and deploying scalable AI solutions

Current focus: applied machine learning, optimization, and scalable AI for real-world systems.

Education

Conservatoire national des arts et métiers (CNAM) *Paris, FR* 2024 – 2026

Masters – European AI4CI Master Artificial Intelligence for Connected Industries

German University in Cairo (GUC) *Cairo, EG* Sep 2019

Bachelor of Science – Computer Science and Engineering

Relevant Experience

Senior Software Engineer, Backend · **JG Wentworth** *Chesterbrook, PA* Nov 2022 – Nov 2023

- Joined the Stilt team, acquired in December 2022, to develop a new lending platform that expanded from serving 2 states to 37 states, using Flask, PostgreSQL, and GCP.
- Architected and maintained an infrastructure of 56 services, leveraging messaging queues, cron jobs, webhooks, and technologies such as Docker, Firebase, Pub/Sub, and Redis.
- Led the development of a predictive risk-scoring model, a critical lending component that shortened the customer journey and reduced decision time to under 3 seconds, enabling automated and rapid borrower approvals.

Software Engineer II, Backend · **Onbo by Stilt** *San Francisco, CA* Nov 2021 – Sep 2022

- Contributed as an initial team member to the development of their backend codebase using Flask, MySQL, and GCP from scratch over the span of 3 months before its launch, participating in code reviews, writing design documents, and creating test plans for the quality assurance team.
- Designed and integrated a testing framework and wrote up to 576 test cases (unit, integration, and end-to-end tests) into the CI/CD pipeline, enhancing code reliability.
- Managed on-call duties, responded to incidents and supported up to 5 fintech startups simultaneously to facilitate their seamless onboarding and integration with our APIs.

Software Engineer, Full Stack · **Stilt (YC W16)** *San Francisco, CA* Oct 2020 – Nov 2021

- Refactored their mobile app with Flutter and MVVM design pattern, using providers for state management and significantly minimizing UI bugs, achieving a 0.01% crash rate, thus improving user experience.
- Elevated the app's store rating from 2.1 to an impressive 4.4, showcasing the positive impact of technical enhancements on customer satisfaction and engagement.
- Led the resolution of a critical payment returns issue caused by an outdated third-party API, ensuring 100% of affected users received refunds through daily cron jobs, SFTP transfers, and file parsing.

Skills & Other

- **Programming Languages:** Python, SQL, Dart, Swift, Javascript, Typescript
- **Database:** MySQL, PostgreSQL, MongoDB
- **Libraries & Frameworks:** NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Flask, Flutter
- **Machine Learning & AI:** Applied ML, Predictive modeling, Federated learning (Flower), LLM integration & embeddings, Data preprocessing, Model serving (APIs)
- **Tools & Platforms:** Git, Github Actions, Docker, Google Cloud Platform (GCP), Jupyter, Google Colab

Languages

- **English** (Fluent), **French** (Fluent), **Arabic** (Native)