

Professional Summary

- **ML Engineer:** Deployed and monitored scalable ML models as REST APIs using FastAPI, Docker, PostgreSQL, Prometheus, and Grafana, with automated CI/CD via GitHub Actions.
- Led the development of SaveBirds.app, processing 56 years of data on 800 bird species across 300,000 locations, reducing analysis time from weeks to minutes and enabling rapid assessment of 40,000+ Protected Areas.
- Enhanced medical wearable analytics, improving accuracy metrics by 25-57
- Led nationwide data digitization project for 1M+ students across 40 districts, improving data accuracy by 40

Professional Experience

Machine Learning Engineer, Stealth Startup, California, USA

May 2024 – Present

- Deployed scalable ML models as REST APIs using FastAPI and Docker.
- Implemented real-time monitoring with Prometheus and Grafana.
- Automated ML workflows with CI/CD pipelines using GitHub Actions.

Data Scientist, SaveBirds, Ohio, USA

September 2019 – May 2024

- Developed SaveBirds.app (www.savebirds.app) to reduce data processing time by 99
- Created the Bird Atlas Generator (BAG), making atlas creation accessible without GIS expertise.
- Automated biodiversity metrics for 40,000 Protected Areas, supporting 7 projects with 10 researchers from 6 institutions.

AI Scientist, Sanofi, Cambridge, MA, USA

June 2022 – August 2022

- Improved gait speed accuracy by 25
- Enhanced sway detection accuracy by 46
- Optimized data pipeline for 1.2 million accelerometer data points, reducing processing time by 45

Lead Data Scientist & Deputy Director of Research and Technology, Farabi Institute September 2013 – May 2022

- Led provincial implementation of nationwide data digitization project for 1,000,000+ students, 40,000 classrooms, and 76,000 teachers across 40 districts.
- Supervised 100+ data analysts, ensuring standardized, high-quality data collection and analysis at scale.
- Enhanced data accuracy by 40
- Applied regression, classification, and time series analyses to derive actionable insights for data-driven policy decisions.
- Developed automated alert system identifying performance shifts, enabling timely interventions throughout the education system.

Education

• **Ph.D. in Data Science**, Bowling Green State University, Ohio, USA

September 2019 – May 2024

• **M.Sc. in Physics**, University Name, Location Graduation Year Focus: Nonlinear Optics, thermal effects in Green Lasers

• **B.Sc. in Physics**, University Name, Location

Graduation Year

Technical Skills

- **Programming Languages:** Python, R, SQL, C++, FORTRAN, MATLAB
- **Machine Learning & AI:** TensorFlow, PyTorch, Scikit-learn, Computer Vision, NLP, LLMs, RAG
- **Data Tools:** Pandas, NumPy, GeoPandas, ipywidgets, PostgreSQL, Prometheus, Grafana
- **DevOps & Infrastructure:** Docker, GitHub Actions, CI/CD, High-Performance Computing (HPC)
- **Big Data:** Apache Hadoop, Apache Spark, Feature Engineering, Time-Series Analysis

Publications & Projects

- **Publications:** 34 total publications, including 12 journal articles and 22 full conference papers
- **Research Focus:** Generative AI in Computer Vision, Computational Modeling and Simulation
- **SaveBirds.app:** Led 7 research projects involving 10 researchers from 6 institutions
- All computational studies employed original modeling and simulation approaches developed through self-authored code