# **ABIN ZORTO**

# MACHINE LEARNING ENGINEER

 ♥ Flat 6, 60 West-ferry Road, London, E148LN — □ +447939412710 — ■ abinzorto@outlook.com — in linkedin.com/in/abin-zorto

Machine Learning Engineer with 2+ years of research expertise driving 30%+ accuracy improvements across 4 major ML projects. Track record of securing £50,000 in research funding and publishing 2 peer-reviewed journal papers with multiple citations. Specialized in scaling ML pipelines to handle 1M+ daily predictions while reducing deployment time by 75%.

# **TECHNICAL SKILLS**

Programming Languages: Python, JavaScript, C++, C#, R, SQL, NoSQL, Scala

Machine Learning & Data Science: NumPy, Pandas, TensorFlow, PyTorch, Scikit-learn, Matplotlib, Seaborn, PySpark, NLTK Cloud & Infrastructure:

- Azure: Machine Learning, Databricks, Functions, Kubernetes Service, DevOps, Active Directory, DataLake
- AWS: EC2, S3, Lambda, SageMaker, Glue, ECS, RDS, CloudWatch, CloudFormation

Development & DevOps: Terraform, Docker, Kubernetes, Git, GitHub Actions, Jenkins, GitLab

# **EXPERIENCE**

Senior Research Assistant

#### University of East London

September 2023 - July 2024

- Secured £50,000 research grant and led 8-person team investigating vector-borne disease proliferation
- Engineered ML pipeline processing 100,000+ data points, achieving 92% prediction accuracy
- Architected data visualization framework reducing analysis time by 40% and boosting stakeholder engagement by 25%
- Orchestrated deployment of 3 production ML models using TensorFlow and PyTorch, increasing reliability by 35%
- Pioneered bias detection system analyzing 5 key metrics, improving model fairness scores by 28%
- Scaled serverless computing infrastructure handling 50,000+ daily requests using Azure Functions
- Established automated CI/CD pipeline reducing model deployment time by 50

Teaching and Research Supervisor

#### University of East London

May 2023 – September 2023

- Mentored 15 graduate students, achieving 93% project completion rate
- Spearheaded 12 technical workshops reaching 100+ students, boosting engagement rates by 40%
- Redesigned course materials for 3 modules, elevating student satisfaction scores by 20%
- Guided 30 students to achieve 35% improvement in research paper quality
- Mentored 5 students to successful publication, achieving 40% increase in department publication rate

Junior Research Assistant

#### University of East London

September 2022 - May 2023

- Architected healthcare ML models achieving 30% improvement in diagnosis accuracy
- Published 2 papers in Q2 journals (impact factor: 5), cited by 50+ researchers
- Delivered 5 conference presentations reaching 1,000+ academic audience members
- Optimized data processing pipeline to handle 5TB+ of medical data using PySpark
- Designed analytics workflow reducing query time by 60% using Azure Synapse

**Retention Specialist** 

### **Direct Line Group**

January 2022 – March 2022

- Managed 200+ monthly customer interactions achieving 95% satisfaction rate
- Formulated stakeholder feedback system capturing 50% more actionable insights
- Contributed to 15% reduction in customer churn through data-driven engagement strategies
- Generated weekly analytics reports tracking  $20+\ \mbox{KPIs}$  for executive team
- Achieved top 10% performance rating among 50+ specialists

### RESEARCH PUBLICATIONS

scholar.google.com/citations?hl=en&user=1yjR8x8AAAAJ (click to view)

- Authored ML-based keratoconus diagnosis paper achieving 85% accuracy rate Informatics in Medicine Unlocked (Impact Factor: 5.2) (Citations: 5+)
- Pioneered novel GAN architecture improving sepsis diagnosis accuracy by 25% Applied Computational Intelligence

# **TECHNICAL PROJECTS**

github.com/AbinZorto (click to view)

#### Computer Vision & Deep Learning

Engineered YOLOv4 detection system achieving 64% accuracy on 50,000+ video frames for COVID-19 compliance

#### **MLOps & Infrastructure**

- Orchestrated ML deployment system reducing release cycle from 24 hours to 6 hours across 3 environments
- Scaled compute infrastructure supporting 200+ concurrent users with 99.9% uptime
- Optimized CI/CD pipeline reducing build times by 40% for 20+ microservices
- Automated resource provisioning cutting deployment costs by 35%

#### **NLP & Document Processing**

- Spearheaded document analysis system processing 10,000+ pages daily with 92% accuracy
- Integrated 5+ Azure Cognitive Services achieving 40% improvement in text extraction
- Scaled Kubernetes deployment to handle 100+ concurrent processing requests

# **EDUCATION**

PhD in Computer Science

May 2023 - May 2026

University of East London

Research Focus: A Multimodal Computational Intelligence Approach to Neurophysiological Predictors of Transcranial Direct Current Stimulation for Depression Treatment

**MSc Computer Science** 

January 2021 - January 2023

Grade: Distinction (96%)

University of East London

Thesis: Developed ML system improving medical diagnosis accuracy by 30%

**MSc Advanced Robotics** 

September 2019 – September 2020

Queen Mary University of London

Grade: Distinction (81%)

Thesis: Created autonomous system reducing navigation errors by 55%

**BEng Mechanical Engineering** 

September 2016 - June 2019

The University of Manchester

Grade: 2:2 (55%)

Final Project: Led 4-person team to design automated system improving efficiency by 30%