

# Ahmed Mohamed - AI/ML Engineer

## Complete Professional Profile & Portfolio

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### PROFESSIONAL OVERVIEW

**Name:** Ahmed Mohamed

**Username:** 3bsalam-1

**Role:** Machine Learning Engineer | Python Expert | Neural Network Design & API Development

**Status:**  Available For Hiring

**Education:** B.Sc. Computer Science, Suez Canal University (Grade: Very Good)

**Location:** Ismailia, Egypt

**Timezone:** UTC +02:00 (14:14 local time)

### Professional Taglines

- AI / Machine Learning Engineer
  - Data Scientist
  - Deep Learning Enthusiast
  - Python Developer
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### GITHUB STATISTICS

#### Community Engagement

- **Followers:** 154
- **Following:** 100
- **Public Repositories:** 24
- **Stars Received:** 59
- **Projects:** 0 public projects
- **Packages:** 0 published packages

#### Ranking & Recognition

- GitHub Developer Program Member

- Ranked in Egypt for active development contributions
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## GITHUB ACHIEVEMENTS

### Earned Badges & Accomplishments

#### 1. Pair Extraordinaire (x3)

- Demonstrated exceptional collaboration through paired programming
- Multiple instances of collaborative contribution excellence

#### 2. Galaxy Brain (x3)

- Provided outstanding answers and solutions to complex problems
- Recognized for exceptional community contributions

#### 3. Pull Shark (x2)

- Successfully merged multiple pull requests
- Active contributor to collaborative projects

#### 4. Quickdraw

- Rapidly closed issues with efficient solutions
- Demonstrated quick problem-solving capabilities

#### 5. YOLO

- Merged pull requests without review (when appropriate)
- Shows confidence and code quality standards

### Special Highlights

- Developer Program Member:** Official GitHub Developer Program participant
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## ABOUT ME

I am a motivated **AI/ML Engineer** and a recent Computer Science graduate from **Suez Canal University** (Grade: Very Good). I specialize in building end-to-end Machine Learning solutions, from data analysis and preprocessing to model development and deployment. My passion lies in Deep Learning, Computer Vision, and creating intuitive applications using Python.

## Professional Philosophy

```
python

class AI_Engineer:
    def __init__(self):
        self.name = "Ahmed Mohamed"
        self.role = "AI/Machine Learning Engineer"
        self.education = "B.Sc. Computer Science (Suez Canal University)"
        self.location = "Ismailia, Egypt"

    def get_skills(self):
        return {
            "Core": ["Python", "Data Structures", "Algorithms"],
            "AI_ML": ["TensorFlow", "PyTorch", "Scikit-learn", "Computer Vision"],
            "Deployment": ["FastAPI", "Docker", "Desktop Apps (Tkinter)"]
        }

    def say_hi(self):
        print("Welcome to my profile! Let's build something amazing with AI. 🚀")
```

## 🛠 TECHNICAL SKILLS & EXPERTISE

### AI/ML Frameworks & Libraries

- **TensorFlow** - Deep learning framework for production-ready models
- **PyTorch** - Research-focused deep learning framework
- **Keras** - High-level neural networks API
- **Scikit-learn** - Traditional machine learning algorithms
- **OpenCV** - Computer vision and image processing
- **Pandas** - Data manipulation and analysis
- **NumPy** - Numerical computing and array operations

### Programming Languages

- **Python** (Primary) - Expert level, production-ready code
- **C++** - Systems programming and algorithm optimization

- **SQL** - Database management and queries
- **HTML5** - Web markup and structure
- **CSS3** - Styling and responsive design
- **JavaScript** - Client-side interactivity

## Development & Deployment Tools

- **FastAPI** - Modern, fast web framework for building APIs
- **Docker** - Containerization and deployment
- **Git & GitHub** - Version control and collaboration
- **Linux** - Development environment and server management
- **VS Code** - Primary development environment
- **Jupyter Notebook** - Data analysis and experimentation
- **Firebase** - Backend services and real-time databases

## Specialized Skills

- **Desktop Applications:** Tkinter-based GUI development
  - **API Development:** RESTful services with FastAPI
  - **Computer Vision:** Image processing, object detection, OCR
  - **Deep Learning:** Neural network design and training
  - **Data Science:** Statistical analysis, feature engineering
  - **MLOps:** Model deployment and monitoring
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## CORE COMPETENCIES

### Machine Learning Pipeline

1. **Data Collection & Preprocessing**
  - Data cleaning and transformation
  - Feature engineering and selection
  - Handling missing data and outliers
2. **Model Development**

- Algorithm selection and implementation
- Hyperparameter tuning
- Cross-validation and evaluation

### 3. Model Deployment

- API development with FastAPI
- Dockerization and containerization
- Production monitoring and maintenance

## Specialization Areas

- **End-to-End ML Solutions:** Complete pipeline from data to deployment
  - **Deep Learning:** CNN, RNN, and advanced architectures
  - **Computer Vision:** Image classification, object detection, OCR
  - **Natural Language Processing:** Text analysis and processing
  - **Reinforcement Learning:** Q-Learning and environment simulation
  - **Desktop Application Development:** User-friendly GUI applications
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## FEATURED PROJECTS (PINNED REPOSITORIES)

### 1. FitSync

**Category:** Health & Fitness Ecosystem

**Stars:** 3

**Technologies:** Jupyter Notebook, Mobile Development, AI

#### **Description:**

A holistic fitness ecosystem designed to bridge the gap between workout tracking, nutrition management, and AI-driven insights. It seamlessly integrates a cross-platform mobile application, a responsive web platform, and AI-powered features to create a comprehensive fitness solution.

#### **Key Features:**

- Cross-platform mobile application
- Nutrition management system
- AI-driven fitness insights

- Workout tracking integration
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## 2. MountainCar

**Category:** Reinforcement Learning

**Stars:** 5

**Technologies:** Python, OpenAI Gymnasium, Q-Learning

### Description:

A professional, modular reinforcement learning implementation that solves the classic MountainCar-v0 environment from OpenAI Gymnasium using Q-Learning algorithm. Demonstrates advanced RL concepts and clean code architecture.

### Key Features:

- Q-Learning algorithm implementation
  - Modular and professional code structure
  - OpenAI Gymnasium integration
  - Performance optimization
- 

## 3. Soundify - Arabic OCR Text-to-Speech

**Category:** OCR & Speech Synthesis

**Stars:** 3 | Forks:\*\* 1

**Technologies:** Python, OCR, TTS, Desktop Application

### Description:

Soundify is a Python desktop application that converts Arabic text from images into spoken audio. It offers two OCR recognition modes in a single unified interface, making it versatile for different use cases.

### Key Features:

- Dual OCR recognition modes
  - Arabic language support
  - Text-to-speech conversion
  - Desktop GUI interface
  - Image processing capabilities
-

## 4. Regression Models

**Category:** Machine Learning & Deep Learning

**Stars:** 2

**Technologies:** Jupyter Notebook, Scikit-learn, TensorFlow

### Description:

A comprehensive collection of regression model implementations using both Machine Learning and Deep Learning approaches for predicting housing prices. Demonstrates various modeling techniques and comparative analysis.

### Key Features:

- Multiple regression algorithms
  - ML and DL implementations
  - Housing price prediction
  - Comparative performance analysis
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## 5. Car-Info API

**Category:** REST API & Machine Learning

**Stars:** 2

**Technologies:** Python, FastAPI, Gradient Boosting

### Description:

A professional FastAPI-based REST API that predicts car prices using a Gradient Boosting machine learning model. Simply provide a car brand, and the API returns an intelligent price prediction along with detailed insights.

### Key Features:

- FastAPI framework
  - Gradient Boosting model
  - RESTful API design
  - Price prediction service
  - Professional error handling
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## 6. Mood Detection

**Category:** Computer Vision & Deep Learning

**Stars:** 3

**Technologies:** Python, CNN, OpenCV, Image Processing

### Description:

A professional deep learning project that detects facial mood expressions (Happy vs Sad) from images using a Convolutional Neural Network (CNN). Features real-time prediction via camera or file upload.

### Key Features:

- CNN-based emotion detection
  - Real-time camera integration
  - Binary classification (Happy/Sad)
  - Image preprocessing pipeline
  - User-friendly interface
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## CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

### 1. Supervised Machine Learning: Regression and Classification

**Institution:** DeepLearning.AI & Stanford University

**Platform:** Coursera

#### Focus Areas:

- Machine Learning fundamentals
- Regression models and techniques
- Classification algorithms
- Model evaluation and optimization

### 2. Python Project: pillow, tesseract, and OpenCV

**Institution:** University of Michigan

**Platform:** Coursera

#### Focus Areas:

- Image processing with Pillow
- OCR with Tesseract

- Computer Vision with OpenCV
  - Practical project implementation
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## CONTACT INFORMATION

### Primary Contact

- **Email:** [3bsalam0@gmail.com](mailto:3bsalam0@gmail.com)
- **Location:** Ismailia, Egypt
- **Timezone:** UTC +02:00

### Professional Networks

- **LinkedIn:** [linkedin.com/in/ahmed-abdulsalam1](https://linkedin.com/in/ahmed-abdulsalam1)
- **GitHub:** [github.com/3bsalam-1](https://github.com/3bsalam-1)
- **Medium:** [@3bsalam0](https://medium.com/@3bsalam0)

### Social Media

- **Twitter/X:** [@3BSALAM\\_1](https://twitter.com/@3BSALAM_1)
  - **Instagram:** [@3bsalam.1](https://instagram.com/@3bsalam.1)
  - **Facebook:** [3BSALAM.Alien](https://facebook.com/3BSALAM.Alien)
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## PROFESSIONAL FOCUS & EXPERTISE

### Current Focus Areas

1. **End-to-End Machine Learning Solutions**
  - Complete pipeline development from data collection to deployment
  - Production-ready ML systems
  - Scalable architecture design
2. **Deep Learning & Neural Networks**
  - Convolutional Neural Networks (CNN)

- Recurrent Neural Networks (RNN)
- Advanced architectures and optimization
- Transfer learning and fine-tuning

### 3. Computer Vision Applications

- Image classification and segmentation
- Object detection and tracking
- Optical Character Recognition (OCR)
- Real-time video processing

### 4. API Development & Deployment

- RESTful API design with FastAPI
- Microservices architecture
- Docker containerization
- Cloud deployment strategies

### 5. Desktop Application Development

- User-friendly GUI with Tkinter
  - Cross-platform compatibility
  - Integration with ML models
  - Real-time data processing
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## 💡 TECHNICAL CAPABILITIES

### Data Science & Analytics

- Statistical analysis and hypothesis testing
- Exploratory Data Analysis (EDA)
- Data visualization and reporting
- Feature engineering and selection
- Handling imbalanced datasets
- Time series analysis

### Machine Learning

- Supervised learning (Classification, Regression)
- Unsupervised learning (Clustering, Dimensionality Reduction)
- Ensemble methods (Random Forest, Gradient Boosting)
- Model selection and evaluation
- Hyperparameter optimization
- Cross-validation techniques

## Deep Learning

- Neural network architecture design
- Convolutional Neural Networks (CNN)
- Recurrent Neural Networks (RNN)
- Transfer learning
- Model optimization and regularization
- TensorFlow and PyTorch implementations

## Software Engineering

- Clean code principles
  - Version control with Git
  - API design and development
  - Testing and debugging
  - Documentation and code reviews
  - Agile development practices
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## PROFESSIONAL STRENGTHS

### Technical Excellence

- Strong foundation in computer science fundamentals
- Proficiency in multiple programming paradigms
- Deep understanding of ML algorithms and mathematics

- Practical experience with industry-standard tools

## Problem-Solving

- Analytical thinking and logical reasoning
- Creative solution design
- Performance optimization
- Debugging and troubleshooting

## Communication & Collaboration

- Active GitHub community member (154 followers)
- Technical writing on Medium
- Collaborative project experience
- Code review and mentoring

## Continuous Learning

- Verified certifications from top institutions
  - Active in latest AI/ML developments
  - Hands-on project implementations
  - Open-source contributions
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## CAREER OBJECTIVES

### Short-term Goals

- Contribute to impactful AI/ML projects
- Expand expertise in advanced deep learning techniques
- Build production-grade ML systems
- Collaborate with experienced professionals

### Long-term Vision

- Become a leading AI/ML expert

- Contribute to innovative AI solutions
  - Mentor aspiring ML engineers
  - Drive technological advancement through AI
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## KEY DIFFERENTIATORS

1. **Full-Stack ML Development:** From data preprocessing to production deployment
  2. **Practical Implementation:** Portfolio of working projects demonstrating real-world skills
  3. **Academic Foundation:** Strong computer science background from recognized university
  4. **Community Engagement:** Active GitHub presence with multiple achievements
  5. **Continuous Learning:** Certified from Stanford and University of Michigan programs
  6. **Versatile Skill Set:** Backend APIs, desktop apps, and ML model development
  7. **Production Experience:** Docker, FastAPI, and deployment-ready solutions
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## ADDITIONAL INFORMATION

### Work Style

- Meticulous attention to detail
- Strong documentation practices
- Test-driven development approach
- Iterative improvement mindset
- Collaborative team player

### Availability

-  Currently available for hiring
- Open to full-time positions
- Remote work capable
- Flexible with project-based work

## Interests

- Artificial Intelligence advancement
  - Computer Vision applications
  - Deep Learning research
  - Open-source contribution
  - Technical writing and education
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## READY TO COLLABORATE

I am passionate about leveraging AI and Machine Learning to solve real-world problems. With a strong foundation in computer science, hands-on experience in multiple ML projects, and a commitment to continuous learning, I am ready to contribute to innovative teams and challenging projects.

**Let's build something amazing with AI!** 

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