FROMSA TESHOME NEGASA

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OBJECTIVE

Seeking a Master's Thesis Internship with the goal of pursuing a PhD in the field of AI applications, particularly in computer vision, and biomedical imaging. Eager to contribute to innovative projects and leverage advanced technologies to drive progress in these interdisciplinary areas.

EDUCATION

• ERASMUS MUNDUS JOINT MASTER'S DEGREE (EMJMD)

September 2023 – Ongoing

EMJMD in Photonics for Security Reliability Sustainability and Safety (PSRS) 🗹

Saint-Étienne, France

- Earned 30 ECTS credits at Université Jean Monnet with a grade of 16.13/20
- Earned 37 ECTS credits at University of Eastern Finland with 4.8 / 5 grade
- Currently enrolled in the 3rd semester of the program at UPEC specializing in biometrics and computer vision

TIANJIN UNIVERSITY

June 2022

Bachelor of Engineering in Chemical Engineering and Technology

Tianjin, China

- o Completed a Propaedeutic Education program in Chinese Language prior to commencing major coursework
- $_{\circ}$ Earned 175 credits with a GPA of 3.01 / 4.00

UNIVERSITY OF THE PEOPLE

Iune 2022

Associate of Science in Computer Science

Online

o GPA: 3.59 / 4.00

M2 Research Internship

EXPERIENCE

• LISSI Laboratory and IMRB (Mondor Institute of Biomedical Research)

October 2024 - Ongoing

Créteil, France

- Developing ML/DL methods to analyze cell migration patterns in Duchenne Muscular Dystrophy research
- Implementing automated tracking systems to study myoblast migration through optical microscopy data
- Collaborating with interdisciplinary teams to evaluate disease progression using cell migration analysis

Tianjin University

September 2022 – August 2023

Graduate Student Assistant, School of Chemical Engineering

Tianjin, China

Developed ML models for industrial applications and image processing at SMART Bio-informatics Lab

PROJECTS

Multi-Functional Biometric System

October 2024 - January 2025

Tools: Python, OpenCV, TensorFlow, PyQt,

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- A unified system for face recognition (verification, identification, expression, age, gender, and pose estimation).
- Included human body pose estimation and an integrated GUI for seamless user interaction.

• Text-Based LLM Chat Interface and Multi-Modal LLM App with Text and Image Inputs

October 2024

Tools: Python, Colab, ngrok, FastAPI

 \bigcirc Cotober 2024 \bigcirc

• Developed a GUI for LLMs with text and image inputs through Colab-hosted APIs.

• Hyperspectral Imaging: Spectral Image Analysis

April 2024

Tools: Nuance Ex-VIS Camera, MATLAB

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• Captured and analyzed spectral images with a Nuance Ex-VIS camera under simulated daylight.

• Undergraduate Thesis Project: Amharic Character Recognition with U-Net

January 2022 - June 2022

Tools: Sequential CNN, Factored CNN, U-Net, Python

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Pre-processed datasets from literature sources and implemented on different architectures.
Achieved 93% accuracy on Amharic character recognition.

GoogLeNet on Labeled Faces Wild (LFW) Dataset

November 2024

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Tools: GoogLeNet, TesnsorFlow, GPU, Python

 \circ Trained a GoogLeNet model for face recognition on the LFW dataset over GPU

September 2020 - December 2020

• Research Project: China-ASEAN Online Program on Data Science and Big Data Tools: Python, Keras

- Led a four-person research team on Named Entity Recognition (NER) in Natural Language Processing.
- Designed and implemented NLP models for entity extraction and classification.

• IChemE Process Design Project: Process Simulation and Optimization

November 2021 - June 2022

Tools: Aspen Plus, AutoCAD

• Optimized vertical flash drum equipment sizing and developed a comprehensive process flow by integrating P&IDs.

SKILLS

- Programming Languages: Python, MATLAB, Kotlin
- Deep Learning and Computer Vision Frameworks: TensorFlow, OpenCV
- Web & Database Technologies: HTML, CSS, SQL
- Other Tools & Technologies: Microsoft Office, LATEX (Overleaf), GitHub
- Research Skills: Literature Review, Data Analysis, Good Laboratory Practice, Problem Solving
- Languages: English (IELTS: 7.0/Duolingo: 135), Mandarin Chinese (HSK 5), Amharic (Native)

HONORS AND AWARDS

• Erasmus Mundus Joint Master's Degree Scholarship

September 2023

Education, Audiovisual and Culture Executive Agency, European Commission

· Associated with Erasmus Mundus Joint Master Degree Photonics for Security Reliability and Safety (PSRS)

• Distinguished International Student Award

July 2018

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Tianjin Univeristy

• Awarded the Full Attendance Scholarship and the Second Prize Scholarship of Propaedeutic Education of Chinese Language.

Chinese Government Scholarship

September 2017

Chinese Scholarship Council

· Associated with Tianjin University, School of Chemical Engineering

CERTIFICATIONS

• Android Developer Fundamentals, <i>Udacity</i> , 🗹	Oct 2024
• OpenCV Bootcamp, OpenCV University, 🗹	Feb 2024
• Google Data Analytics Professional Certificate, Google via Coursera, 🗹	Jun 2023
• MATLAB Onramp, MathWorks, 🗹	Mar 2023
• Chinese Proficiency Test, HSK (Level 5), Center for Language Education and Cooperation, 🗹	May 2022
• Machine Learning, Stanford University via Coursera, 🗹	Apr 2021

REFERENCES

1. Nathalie Destouches Z

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Relationship: EMJMD PSRS Head Coordinator

2. Amine Nait-Ali

Professor, Biometrics Research Group

University of Paris-Est Créteil (UPEC) Email: naitali@u-pec.fr

Relationship: PSRS Coordinator at UPEC

3. Polina Kuzhir 🗹

Professor, Department of Physics and Mathematics

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