



Tinsae Gebrechristos Dulecha

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Gender: Male **Date of birth:** 30/04/1985 **Nationality:** Ethiopian

ABOUT ME

In 2021, I received a PhD in Computer Science from the University of Verona with a dissertation on appearance measurement and analysis using multi-light image collections. During my Ph.D. research, I used deep-learning and machine-learning techniques to solve different material-appearance analysis problems. My research interests and publications lie in the Measurement, Analysis, and Modeling of Material Appearance, Machine Learning, and Reflectance Transformation Imaging for Cultural Heritage applications. From September 2021 to January 31, 2023, I worked as a Research Fellow in the Department of Cultures and Civilizations at the University of Verona as the RESP Digital Humanities Project Officer. Working as a RESP digital officer, I realized a web content management system for a project that can be edited by the principal investigator and a data management system, where researchers can store, retrieve, and export different archaeological data of Roman emperors from Augustus to Tetrarchs. Currently, I am a research fellow in the Department of Philosophy and Cultural Heritage at Ca'Foscari University of Venice.

WORK EXPERIENCE

[01/02/2023 – Current]

Research Fellow

Ca'Foscari University of Venice

City: Venice

Country: Italy

[15/09/2021 – 31/01/2023]

Research Fellow

University of Verona, department of culture and civilization

City: Verona

Country: Italy

[07/01/2021 – 30/06/2021]

Research Scholarship Holder

University of Verona, department of Computer Science

City: Verona

Country: Italy

Name of unit or department: Computer Science

Business or sector: Education

[30/10/2016 – 30/10/2017]

Research Fellow

Ca' Foscari University of Venice, European Centre for Living Technology(ECLT)

City: Venice

Country: Italy

[28/03/2016 – 10/10/2016]

Lecturer

Hawassa University, Institute of Technology, School of Informatics

City: Hawassa

Country: Ethiopia

[01/12/2014 – 30/11/2015]

Research Fellow

IUAV University of Venice

City: Venice

Country: Italy

[11/01/2011 – 01/10/2012]

Pre-sales Engineer

ethio telecom

City: Addis ababa

Country: Ethiopia

- Giving technical advice and consulting for enterprise customers.
- Preparing technical proposal, a proposal that explains in detail the implementation of the service requested(i.e., the hardware, software needed and configuration), for enterprise customers.

[25/09/2007 – 10/01/2011]

Programmer

Ethiopian Telecommunications Corporation

City: Addis ababa

Country: Ethiopia

- Developing software for internal use of the company.
- Providing training for customer care and billing, front desk, workers

EDUCATION AND TRAINING

[01/10/2017 – 16/06/2021]

PhD in Computer Science

University of Verona

City: Verona

Country: Italy

Field(s) of study: Computer Science

Thesis: Surface analysis and visualization from multi-light image collections

[16/09/2012 – 31/10/2014]

Master of Science in Computer Science

Ca' Foscari University of Venice

City: Venice

Country: Italy

Thesis: On Determining the Number of Dominant-Set Clusters

- Subjects covered: Computer vision, Artificial Intelligence, Data and Web Mining, Information Theory, Statistical Learning, Statistics for Technology, Computer Security, Multimedia Systems, Distributed Systems, Mathematical Logic, Advanced Database and Analysis and Verification of Software.

[05/12/2004 – 12/07/2007]

Bachelor of Science in Computer Science

Hawassa University

City: Hawassa

Country: Ethiopia

Thesis: Dormitory Management System

- Subjects covered: System Analysis and Design, Data communication and Computer Networks, Fundamentals of Programming, Object-Oriented Programming, Database System, Data Structure and Algorithms, Internet Programming, Introduction to Formal Language Theory, Software Engineering, Analysis of Algorithms, Principles of Compiler Design, Operating Systems, Introduction to

Artificial Intelligence, Advanced Database Systems, Computer Organization and Architecture, Systems and Network Administration, Computer Graphics, Information and Society, Applied Mathematics I, Applied Mathematics II, Introduction to Probability and Statistics, Discrete Mathematics and Combinatorics, Numerical Analysis I and Fundamental Concept of Algebra

LANGUAGE SKILLS

Mother tongue(s): Amharic , Afan Oromo

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Italian

LISTENING B2 READING B2 WRITING B1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

DB design & programming/ MS SQL Server, MySQL | Programming languages: Python, C++, MATLAB, Java, R, | Open source technologies: PHP, OpenCV, | Machine learning frameworks: SciKit-Learn, Pytorch, Keras | Scientific computing: Numpy, Pandas, Scipy | Data Visualization: Matplotlib, Seaborn

PUBLICATIONS

[2020]

[SynthPS: a benchmark for evaluation of photometric stereo algorithms for cultural heritage applications](#)

[2020] **[Neural Reflectance Transformation Imaging](#)**

[2019]

[State-of-the-art in Multi-Light Image Collections for Surface Visualization and Analysis](#)

[2019]

[Crack detection in single-and multi-light images of painted surfaces using convolutional neural networks](#)

[2019] **[MLIC-Synthetizer: a synthetic Multi-Light Image Collection Generator](#)**

[2018] **[Artworks in the spotlight: characterization with a multispectral LED dome](#)**

[Objective and subjective evaluation of virtual relighting from reflectance transformation imaging data](#)

[2017] **[A Computer Vision System for the Automatic Inventory of a Cooler](#)**

[2017] **[Replicator Equation: Applications Revisited](#)**

RECOMMENDATIONS

Professor of Computer Engineering

Name: Andrea Giachetti

Phone number: (+39) 458027998

Email: andrea.giachetti@univr.it

Associate Professor at the university of Verona

Senior Researcher

Name: Ruggero Pintus

Phone number: (+39) 709250347

Email: ruggero@crs4.it

Researcher at Center for Advanced Studies, Research and Development in Sardinia(CRS4)

Associate Professor of Numismatics

Name: Dario Calomino

Phone number: (+39) 458028379

Email: dario.calomino@univr.it

Associate Professor of Numismatics at theUniversity of Verona

Professor of Computer Science

Name: Marcello Pelillo

Phone number: (+39) 412348440

Email: pelillo@unive.it

Professor of Computer Science at Ca' Foscari University of Venice

HONOURS AND AWARDS

Grants

- Winner of one-year ISEED research fellow at Ca' Foscari University of Venice
- Winner of one-year [RESP](#) research fellow at University of Verona
- A three-year grant from the Ministry of Education, University and Research of Italy (MIUR) to finance my PhD research study
- Winner of a two-year regional scholarship for MSc study at CaFoscari University of Venice
- Winner of one-year research fellow at Ca'Foscari University of Venice, European Centre for Living Technology (ECLT)
- Winner of one-year research fellow at IUAV University of Venice

CERTIFICATIONS

Deep Learning

[Show credential](#)

Machine Learning

[Show credential](#)

Data Analysis with Python

[Show credential](#)

Databases and SQL for Data Science with Python

[Show credential](#)

Tools for data science

[Show credential](#)

Machine Learning with Python

Show credential

Students' supervision

Supervisor of following master theses in computer science at Hawassa and Bulehora University, Ethiopia.

- Design space exploration and optimization of mechanical components using machine-learning techniques.
- Ethiopian agricultural commodity price prediction using deep learning and time series algorithms.

Teaching

- 2021/2022, Principles of data science, master's degree in data science, at Bulehora University, Ethiopia
- 2016/2017, Introduction to information storage and retrieval, Bachelor of science in computer science, at Hawassa University, Ethiopia

Venice, Italy, 27/11/2023



Tinsae Gebrechristos
Dulecha