KONSTANTINOS GEORGIOU

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INTRODUCTORY PROFILE

Third-year PhD student in Data Science and Engineering at the University of Tennessee, with a particular emphasis on computer vision and machine learning. I am conducting leading-edge research as a Graduate Research Assistant on transient earth data as part of a project sponsored by IARPA SMART. I have contributed to the field with two papers on Contrastive Learning and Representation Learning with Masked Image Modeling techniques. Beyond my academic work, I have two years of professional experience in roles as a software and data engineer.

CORE COMPETENCIES AND TECHNOLOGIES

Languages:	Python, Shell, Node.js, Java
Frameworks/Tools:	Pytorch, TensorFlow, Apache Spark, Kafka, Django, Docker, Hadoop
Databases:	MySQL, MongoDB, PostgreSQL/Vertica, HBase
Services:	Cloud (AWS, GCP), CI and Automation (Jenkins, Travis CI, Circle CI)
Skills:	Research, Computer Vision/Machine Learning, Data Analysis, Software Design

PROFESSIONAL EXPERIENCE

University of Tennessee – US   Jan 2021 – Now
Graduate Research Assistant

Researching cutting-edge computer vision topics at the AICIP Lab of Dr. Hairong Qi; established a strong research mentality while working alongside brilliant people with invaluable insights into the field.
Key achievements
- Conducted leading-edge research on transient earth data as part of a project sponsored by IARPA SMART.
- Collaborated to develop a contrastive learning framework for pixel-level semantic segmentation on multi-band satellite images, leading to a second-author paper published in IEEE WACV 2023.
- Published a paper on representation learning, specifically focusing on Masked Image Modeling and Contrastive Learning techniques.
- Compiled a comprehensive review of the history and current state of Object detection and Tracking as part of my qualifying exam.

Performance Technologies S.A. – Greece   May 2019 – Dec 2020
Software/Big Data Engineer

Worked for 1.5 years as a Software and Big Data Engineer, cultivating soft skills while training and supervising small teams and handling communication and goal setting with demanding clients.
Key achievements
- Developed and maintained a large project for the biggest telecommunication provider in Greece, designed to replicate terabytes of data from hundreds of sources into a data lake with low latency and resiliency in mind.
- Coached the construction of a deep learning model that predicts the fulfillment time of orders using a highly dynamic dataset.
- Led the development, testing, and delivery of a large-scale service for benchmarking and crediting the SIP call quality of the Public Sector in Greece.

Global Voices Ltd – UK   Feb - Dec 2017
Software Engineer

Worked for 9 months (first 3 months as an intern - awarded the Erasmus+ Placement scholarship) as a Software Engineer and showcased my ability to adapt and learn in a dynamic environment which led to my first full-time job offer.
Key achievements
- Contributed to developing and maintaining the company's proprietary content management system, handling tasks such as bug fixing, feature development, and code reviews.
- Assisted with implementing and maintaining the company's continuous integration and deployment pipelines, improving the efficiency and reliability of product releases.

EDUCATION

University of Tennessee – Knoxville, TN, US   Jan 2021 - Now
Ph.D. in Data Science and Engineering

- Attained a deep understanding of statistical modeling, Bayesian formulation, and hidden Markov models by completing challenging coursework.
- Designed bare-bone implementations of various classical and deep learning models, including CNNs and AEs, to gain strong intuition on the low-level technicalities of these models.
- Successfully coordinated a range of group projects including transformer-based text generation and question answering, vaccination rate prediction, and reinforcement learning agents that play Minecraft, prioritizing efficient task allocation and high-quality delivery.

University of Patras – Greece	Sept 2012 - Feb 2019

Integrated Master's in Computer Engineering and Informatics

- Demonstrated proficiency in conducting research by devising an innovative approach for scaling a previously thought non-scalable community detection algorithm, published as the first author in a peer-reviewed journal.
- Excelled in academic projects and programming competitions, demonstrating skills in algorithm design, data structures, and classical machine learning.
- Completed highly demanding coursework in Numerical Analysis, Signal Processing, Operating Systems, Compilers, and Distributed Computing to cement strong computer science foundations.

CERTIFICATIONS

- Intel Edge AI Foundational Course Scholarship (Udacity)   2020
- GRE (Quant: 165, Verb: 151, W: 3.5)   2019
- Docker and Kubernetes: The Complete Guide (Udemy)   2019
- IELTS: 7.5   2018
- The Ultimate Hands-On Hadoop - Tame your Big Data! (Udemy)   2018
- Data Science, Deep Learning and Machine Learning with Python (Udemy)   2018
- MongoDB Essentials - Complete MongoDB Guide (Udemy)   2018
- Google Developer Challenge Scholarship: Android Basics (Udacity)   2017
- BerkeleyX: CS105x Introduction to Apache Spark (EdX)   2016