## KONSTANTINOS GEORGIOU

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#### INTRODUCTORY PROFILE

Second-year PhD student in Data Science and Engineering at the University of Tennessee, with a focus on computer vision and machine learning. As a Graduate Research Assistant, I am conducting leading-edge research on transient earth data as part of a project sponsored by IARPA SMART. I have also published a paper on contrastive learning as a second author and demonstrated state-of-the-art results in the IEEE DFC2022 competition. In addition to my research experience, I have 2+ years of professional experience as a software and data engineer.

#### **CORE COMPETENCIES AND TECHNOLOGIES**

Languages: Python, Bash, NodeJS, Java

Frameworks/Tools: Pytorch, Tensorflow, Apache Spark, Kafka, Django, Docker, Hadoop

Databases: MySQL, MongoDB, PostgreSQL/Vertica, HBase

Services: AWS, GCP, Jenkins, Travis/Circle CI

Skills: Research, Computer Vision, Community Detection, Software Design

#### PROFESSIONAL EXPERIENCE

### University of Tennessee – US

Jan 2021 - Now

### **Graduate Research Assistant**

Researching cutting-edge computer vision topics at the <u>AICIP Lab</u> of Dr. Hairong Qi; established a strong research mentality while working alongside brilliant people with invaluable insights into the field. Second author paper on <u>WACV 2023</u> about Contrastive Learning.

## Key achievements

- Conducted leading-edge research on transient earth data as part of a project sponsored by <u>IARPA SMART</u>.
- 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 <u>WACV 2023</u>.
- 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.
- Trained and supervised small teams and handled communication and goal-setting with demanding clients.

Global Voices Ltd – UK Feb - Dec 2017

## **Software Engineer**

Worked for 9 months (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 the development and maintenance of the company's proprietary content management system, handling tasks such
  as bug fixing, feature development, and code reviews.
- Assisted with the implementation and maintenance of the company's continuous integration and deployment pipelines, improving the
  efficiency and reliability of product releases.
- Mentored junior team members and participated in code reviews to ensure high-quality standards.

# 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 multiple groups to complete a range of projects including transformer-based text generation and question answering, daily 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 Al 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