

KRITHARAKIS EMMANOUIL

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EDUCATION

Boston University (BU), Boston, USA

September 2021 - present

Msc & PhD in Computer Science (CS)

- Concentration: Representation learning on unbounded graphs.
- Relevant Coursework: User-centric Systems for Data Science, Random Computing, Tools for Data Science, Data Stream Processing and Analytics

Technical University of Crete (TUC), Chania, Greece

October 2014 - October 2019

Bsc & Msc in Electrical & Computer Engineering (ECE) (5-year joint degree; 300 ECTS)

- Grade: 9.4/10 "Distinction", Salutatorian in 2014 class (2nd out of 222 students)
- Concentration: Computer Science
- Relevant Coursework: Statistical Modeling & Pattern Recognition, Databases, Algorithms and Complexity, Artificial Intelligence, Probability Theory & Statistics

Thesis title: "Automatic Multi-Document Text Summarization", (Thesis Grade: 10/10)

PROFESSIONAL & RESEARCH EXPERIENCE

PhD candidate at Boston University, Boston, USA

September 2021 - present

Research Assistant at CASP system Lab

- Working under the supervision of Dr. Kalavri on representation learning on graphs.
- In collaboration with Samsung, research is focused on handling unbounded graph streams through graph neural networks (GNNs) turning them into embeddings for downstream machine learning applications.
- Working on efficient ways to restore the necessary graph data from SSD disks for training GNNs to construct the graph embeddings.

Hellenic National Defence General Staff, Athens, Greece

September 2020 - June 2021

Database Administrator

- Worked under the "Unified distributed army mail system" project, by interconnecting the military servers all around Greece to be able to send documents through a web app in the private greek army network.
- Extensive use of PL/SQL for Oracle database and Microsoft SQL Server for testing and development.

LeasePlan, Athens, Greece

December 2019 - September 2020

Database Software Engineer

- Worked under the "Turn Around" project by updating the corporate software with over 40 user-call database features and was responsible for two intercorporate projects:
 - Estimated rented car's cumulative kilometers.
 - Built an webservice called E-Acceptance for automated acceptance of new clients.
- Extensive use of Python, SQL and RPG language for testing and development.

Internship CERN, Geneva, Switzerland

June 2019 - September 2019

Summer Research Intern

- Worked with the EP-SFT group on a generative machine learning model (Variational Autoencoder) to speed-up a high energy physics experimental simulation tool named GEANT4.
- Gathered, pre-processed & analyzed 3D pictures of sub-particles energy distribution using GEANT4.
- Data Visualization of energy sub-particles distributions with CERN's ROOT software.

Thesis Research, Chania, Greece

February 2019 - October 2019

- Gathered, pre-processed & analyzed textual data using Natural Language Processing techniques.
- Built a sentence similarity algorithm based on the semantic and the syntactic nature of sentences.
- Incorporated the sentence similarity algorithm in a state-of-the-art multi-document machine learning model.

- Compared multiple documents summaries using several automatic textual evaluation metrics named ROUGE.

HONORS & AWARDS

Onassis Foundation Scholarship (2021) for supporting my studies as a Ph.D. candidate at Boston University Computer Science Department.

ANEK Lines Scholarship (2019) for completing my studies in ECE School of Technical University of Crete as a saluatorian in the class of 2014.

Excellence Award (2019) from ECE School of Technical University of Crete for completing my studies as a saluatorian in the class of 2014.

National Electrical & Computer Engineering Competition (2017) 3rd place award in ECESCON 10 finals among ECE students teams from universities all over Greece.

Excellence Award (2015) in studies of ECE School of Technical University of Crete for receiving the highest grade (9.25/10) of the class of 2014 in my second year of studies.

LANGUAGES

- **English** (Fluent), **German** (Intermediate), **Greek** (Native)

TECHNICAL STRENGTHS

Software & Tools Python, Pytorch, Keras,Django, SQL, Java, C, RPG , Matlab, R, Git, Linux, Latex

SOCIETIES & AFFILIATIONS

- IEEE (Global association for electrical engineering), Member of TUC student branch (2015-2019).