

Research Associate
Machine Learning for Drone Analytics
(funding available)

Ref.: CSAI06/20

Position Description

The University of Nicosia Artificial Intelligence Lab is looking for an enthusiastic candidate to work on the topic of Machine Learning and its applications to drone technology handling time-critical missions (e.g., search and rescue missions). Specifically, the Researcher will develop innovative AI-enabled self-adaptive algorithms to ease energy consumption and improve data delivery timeliness in drone swarms. To achieve these goals, the Researcher will explore the use of various power-efficient machine learning models for dynamically adjusting, in place, the data sensing and routing of data over drone swarms while maintaining mission requirements. The methods delivered by the project will be placed in a modular and reusable framework for drone swarm operation.

Funding

The conducted research work will be funded under the University of Nicosia SEED grand scheme for the 24 Month FlockAI project. Depending on the background and the skillset of the Researcher, funding may also be made available through collaborations with the AI Lab's industry partners and the involvement of the Researcher in other available national and EU co-funded grants. In turn, depending on her/his qualifications, the Researcher will also have the option to work as a Teaching Assistant in UNIC's offered courses.

Qualifications

- A BSc in Computer Science or Computer Engineering.
- A MSc in relevant fields (Computer Science, Data Science, Machine Learning, Artificial Intelligence, etc) will be considered an advantage.
- The ability to work independently, as well as, in a team.
- Strong analytical skills in Artificial Intelligence and Data Management and/or Distributed Systems and Networks. Ideal skills that a Researcher may have, include:
 - Programming knowledge (e.g., Python, C/C++, Java)
 - Software development and collaborative tools (e.g., git, slack)
 - Some experience in Machine Learning frameworks (e.g., TensorFlow, sci-learn, pytorch) and Big Data frameworks (e.g., Apache Spark/Hadoop/Flink)
 - Some experience in using Unix-based Operating Systems and/or cloud computing environments.
- Excellent written and oral communication skills in English.
- Upon appointment, the Researcher must reside in Cyprus. However, Cypriot citizenship and knowledge of the Greek language are not requirements.

BSc graduates will be encouraged to enroll in the UNIC MSc in Computer Science/Data Science program, while MSc graduates will be encouraged to enroll in the UNIC PhD in Computer Science program under the supervision of the professors of the AI Lab.

Responsibilities

- Conduct state-of-the-art research (experiments, theoretical analysis) on Machine Learning for Drone Analytics.
- Work in teams to achieve the goals of research projects, funded by the industry, the European Commission and other funding agencies.
- Publish research findings, project deliverables and research proposals.

The Artificial Intelligence Lab (<https://ailab.unic.ac.cy/>)

The AI Lab of the University of Nicosia aims at developing cutting edge technology as well as state-of-the-art research on the fields of Artificial Intelligence, Machine Learning, and Data Science. It consists of professors, Post-Doctoral researchers, PhD Students, as well as undergrad students that conduct research and collaborate on projects related to a plethora of topics like: Data Science (Data Stream mining, Deep Learning), Artificial Intelligence (Machine Learning, Uncertain Reasoning, Bayesian Networks), Smart Cities (Learning from Urban Data), Computational Social Science, Sentiment Analysis, Social Network Analysis and Big Data (Cloud Computing, Distributed Systems, IoT). The team focuses on interdisciplinary topics working with external collaborators from Political Science, Social Science, Journalism and Health. In addition to the research goals the group provides high-quality teaching on relevant topics (e.g. Artificial Intelligence, Data Mining, Machine Learning).

The University of Nicosia (<https://www.unic.ac.cy/>)

The University of Nicosia (UNIC) is the largest university in Cyprus and the largest in Southern Europe that teaches primarily in English, with more than 12,000 students from over 70 countries, a diverse community of faculty and staff, and an expanding worldwide network. UNIC is driving educational innovation in the wider region, with activities like our dynamic global initiative in blockchain technology and centres of excellence in medicine, artificial intelligence and distance learning. UNIC is ranked among the top 100 universities in the Emerging Europe and Central Asia Region for 2019 by QS World University Rankings.

Additional Information

For more information related to the position please contact Dr. Demetris Trihinas at trihinas.d@unic.ac.cy

Application Submission

Please submit your CV accompanied by a cover letter describing any relevant experience and your motivation through our online recruitment system <http://vacancies.unic.ac.cy/>.

Applications will be reviewed as soon they are received with the final cut-off date and time being July 12, 2020, 23:55.

Only short-listed candidates will be notified.