

## Personal Information

### Antreas Dionysiou

Home Address	Marinou Geroulanou 180, K.Polemidia, Limassol, Cyprus
Telephone Numbers	25397915, 99041655
Nationality	Cypriot
Birth date	25 July 1994
Email	dionysiouantreas@gmail.com
Marital Status	Single
Languages	Greek, English, Italian.
Moto	We must not dream about success, we have just to work hard for it.

## Education

### January 2020 – Present

Doctor of Philosophy (PhD) in Computer Science. Specialization in Information Security & Machine Learning. Fully funded by "Evagoras and Praxandros" scholarship from UCY.

### September 2018 – December 2019

Master of Science – M.Sc. in Computer Science with specialization in Intelligent Systems, University of Cyprus, Cyprus. Fully funded by Logicom Public Ltd.

Graduated with First Class Honors (Excellent/Άριστα) and GPA of 9/10.

Awards of academic excellence for the master student with the highest academic performance of the University of Cyprus, the Faculty of Pure and Applied Sciences and the Department of Computer Science.

Thesis: Assessing the impact of deep learning on internet services' security mechanisms.

### September 2014 – May 2018

Bachelor of Science – B.Sc. Computer Science, University of Cyprus, Cyprus.

Graduated with First Class Honors (Excellent/Άριστα) and GPA of 9.05/10.

Thesis: Protein Secondary Structure Prediction using Convolutional Neural Networks in Combination with Gabor Filters and Support Vector Machines.

Award of academic excellence from Computer Science Department of University of Cyprus.

Award of academic excellence in artificial intelligence, artificial neural networks and systems security from iSignThis Ltd.

Award of academic excellence from JCC.

### September 2010 – June 2014

CISCO CCNA Certified.

Four Congratulations letters from CISCO (John T.Chambers Chairman and Chief Executive Officer) for completing the four modules (one per module) of CCNA with excellent grades.

### September 2009 – June 2012

High School Apolytirion from Kato Polemidia Lyceum, Limassol, Cyprus.

Grade: 19.75

### September 2011 - June 2012

Cambridge GCE A Level Computing

### September 2010 - June 2011

Cambridge GCE AS Level Computing

### September 2008 – June 2010

**September 2010 – June 2011**

Cambridge IGCSE English as a Second Language

**September 2007 – June 2010**

ECDL (European Computer Driving License) Certified from Cyprus Computer Society CCS. Congratulation Letter for gaining the highest grade nationwide.

**Experience**

**1 March 2020 – Present**

EIT Climate-KIC Accelerator: Stage 2.

After winning the ClimateLaunchpad national final we got the tickets to enter the stage 2 of EIT Climate-KIC Accelerator. This stage includes several tasks, such as attracting potential customers, develop a prototype for our solution, and deliver the first operational results for our product. We have secured a €20.000 budget for staffing, travel/ subsistence, and consumables/services costs.

**1 January 2020 – Present**

Teaching Assistant at Computer Science Department at University of Cyprus.

**1 June – 12 September 2019**

Ag Catalytic Solutions (Ballast water treatment system).

Graduated from ClimateLaunchpad Climate-KIC Regional Innovation Scheme Accelerator Programme in Cyprus (2019). EIT Climate-KIC Accelerator is Europe's largest cleantech accelerator for early stage startups which is focused upon getting them ready for their first customers, helping them fine tune and scale their business and be ready for investors. We won the **1st prize** at the national final and took the tickets to the global final in Amsterdam.

**3 September 2018 - Present**

Special Scientist at Cyber/Information Security Research Group (SREC) at University of Cyprus. A major part of this position was to conduct fundamental research and development for the PERSONAS project (<https://personas-project.eu/>). PERSONAS, is a system-level framework that leverages virtualization for offering additional security to the end-user. PERSONAS provide a device independent, user-centric and self-adaptive security system, able to cope with the concept of seamless working experience on different devices, in which a user may start a session on a device and location and follow up the process on different devices and locations, without corporate or personal digital asset loss.

**25 April 2018 – July 2018**

CEO (Chief Executive Officer), Co-Founder at Ecofy Ltd. Ecofy is a startup company that revolutionized the recycling process through crowdsourcing and gamification. We have created a smart recycling platform for promoting recycling by giving people incentives. People who recycle can earn different rewards on products and services. I have been personally involved in all cycles of software development including problem definition and problem analysis, needs and requirements analysis, software development (back-end and front-end project development using MySQL for database, PHP for API and Ionic framework (Typescript, CSS and HTML) for the smartphone application), testing and debugging and finally maintenance.

**16 April 2018 – June 2018**

Participating Startup Team at IDEA startup incubator – accelerator: Ecofy Ltd. Business Courses, IDEA Accelerator training, which is an incubator program with entrepreneurial activities, business and marketing courses for startup companies.

**20 January 2018 – 26 January 2018**

Participated in the **King Abdullah University of Science and Technology (KAUST)** Winter Enrichment Program (WEP) Poster Competition. My personal research submission, on protein secondary structure prediction using artificial neural networks and Gabor filters,

was chosen out of a very competitive pool of students from around the world. Visited KAUST university in Jeddah, Saudi Arabia, and participated in the final contest for selecting the most innovative and applicable idea to be funded by KAUST university.

### **3 July 2017 – 4 August 2017**

Summer intern at Cyber Security/Risk department of **Deloitte Ltd Limassol**. The internship was about expanding as well as refactoring the warberry tool. **WarBerryPi** was built to be used as a hardware implant during red teaming scenarios where we want to obtain as much information as possible in a short period of time with being as stealth as possible. Just find a network port and plug it in. The scripts have been designed in a way that the approach is targeted to avoid noise in the network that could lead to detection and to be as efficient as possible. The WarBerry script is a collection of scanning tools put together to provide that functionality. The internship was about expanding the current free and paid version of warberry tool. Paid version includes hacking tools and scripts for attacking vulnerable network spots once they have been detected. Encryption of data and results was also developed. Warberry is a network scanning/hacking tool for cyber security purposes.

### **September 2015 – Present**

Researcher at the Computational Intelligence and Neuroscience (CIN) Research Lab at University of Cyprus at Computer Science Department.

### **10 April 2016**

Participated with QuadCode team in the First Game Exhibition in Cyprus, hosted by Microsoft Innovation Centre in European University of Cyprus. The game that was developed and presented was Bomb the Bombs.

### **7 September 2014 - Present**

Participated in Google Hash Code, Hackathon and many other computer science and programmers competitions.

### **2 January 2016**

Co-founder of QuadCode startup company. A mobile application developing company. First project of the QuadCode was Bomb the Bombs game, available on the android play store, with more than 500 downloads with no marketing campaigns.

### **25 July 2012**

Founder of Diosoft Computing Systems. The company provides services in the field of information technology, communications, as well as repair solutions both for hardware and software.

### **July 2012 – July 2014**

Soldier in Cyprus army. Position: Administrator in Computer Science department of ΓΕΕΦ and also administrator of the server room in Communications department in ΙΙΙ ΤΑΞΥΠ. I am very experienced in laptop/pc/server hardware/software problems and I can fix any hardware/software problem with laptop/pc/servers. I am expert on building custom personal computers with different parts from the beginning (combining hardware parts) to the end (installing operating system and software in general format hard disks etc). I have been able to fix/build about 30 pcs/laptops in a day. I am familiar with applications for data recovery and backup. You can contact my head officer in the army to ensure you about the above information. Tel: 99444851 Mr.Kalinikou Marios.

### **June 2012**

Award of Excellence by CYTA for gaining the highest score in Selected Subject Computer Science.

### **June 2012**

Award of Excellence by P.O.P for gaining the highest general score in Lyceum Apolytiron nationwide.

### **21 May 2012**

Award for examined and successfully passed the module Pascal Programming, from Cyprus Computer Society CCS.

#### 16 April 2011

Attended 6<sup>th</sup> Nationwide Technology Contest of University of Cyprus.

Award Diploma for Most Innovative Design and Clever Programming.

#### 29 June – 31 June 2009

Attendance Diploma from Research team of Learning in Physics and Environmental Sciences of University of Cyprus, about research on MATERIALS SCIENCE, CoREFLECT and Science created by you (SCY).

#### Scientific Publications and Conferences

Dionysiou, A., & Athanasopoulos, E. (2020). SoK: Machine vs. Machine—A Systematic Classification of Automated Machine Learning-Based CAPTCHA Solvers. Computers & Security, 101947.

Dionysiou, Antreas. Internet of Intelligent Things (IoT): A Large-Scale Evaluation. LAP LAMBERT Academic Publishing, 2019.

Dionysiou, A., Papaevripides, M., Charalampous, A. (2019). Library Information Retrieval (IR) System of University of Cyprus (UCY). International Journal of Computational Science, Information Technology and Control Engineering. 6. 09-20. 10.5121/ijcsitce.2019.6102.

Dionysiou, A., Agathocleous, M., Christodoulou, C., Promponas, V. (2018). A Hybrid Machine Learning Algorithm for Complex Sequential Data Classification, Using a Novel Data Representation Method. Proc. of the 11th Cyprus Workshop on Signal Processing and Informatics (CWSPI), Nicosia, Cyprus, July 2018, p.8.

Dionysiou A., Agathocleous M., Christodoulou C., Promponas V. (2018). Convolutional Neural Networks in Combination with Support Vector Machines for Complex Sequential Data Classification. In: Kůrková V., Manolopoulos Y., Hammer B., Iliadis L., Maglogiannis I. (eds) Artificial Neural Networks and Machine Learning – ICANN 2018. Lecture Notes in Computer Science, vol 11140, Part II, Springer, Cham, pp. 444-455

#### Refereeing for journals and conferences

International Conference on Artificial Neural Networks (ICANN),  
International Conference on Artificial Intelligence Applications and Innovations (IAII),  
Computer Methods and Programs in Biomedicine,  
International Conference on Engineering Applications of Neural Networks (EANN).

#### Other Computer Skills

**Programming Languages:** C, Python, Java, C#, C++, Visual Basic, Pascal, Assembly, Miranda, VHDL, Lego mindstorms NXT.

**Database Management Systems:** SQL Server, MySQL, MS Access.

**Web developing programming Languages:** HTML, PHP, Bootstrap, Javascript, Typescript, Ionic Framework.

**Applications:** Adobe Photoshop CS5, Adobe Dreamweaver, Wordpress, Drupal, Joomla(basics).

#### Personal Skills

Good Communication skills, Gentle, Adaptable, Alert, Ambitious, Businesslike, Careful, Confident as well as Perfectionist.

#### Education Projects

B.Sc. Thesis: Protein Secondary Structure Prediction (PSSP) using Convolutional Neural Networks (CNNs) in combination with Gabor filters and Support Vector Machines (SVMs). This research is about the implementation and combination of Machine Learning algorithms as well as Artificial Neural Networks (ANNs) for solving the PSSP problem. More specifically this research is about implementing and deploying a convolutional neural network in combination with Gabor filters and support vector machines, for predicting a protein's secondary structure so to be in position to study the protein's tertiary structure and thus produce different kind of enzymes, medicines and drugs for different kind of diseases like cancer, Huntington, Parkinson etc. This methodology achieved one of the highest prediction accuracy scores (80.4%) on the PSSP problem at that time (May 2018).

GCE A LEVEL Computing Project. I had to choose a Company that wants to implement a computer program for resolving main problems using computer systems and improve company performance. My job: Choose the Company, Observe information using questionnaires, interviews and spending time along employees in the company. Make a Project showing the problems of Company, declaring the purpose and the importance

of making a new computerized system, explaining your goals, show detailed explanation of each command in your new computerized system. Implement the new computerized system with databases and GUI (Graphical User Interface). Evaluate the new system using interviews questionnaires and etc. (400 Pages Project and a New Computerized System created).

Chess game application with graphics was the final project of 1<sup>st</sup> semester in Computer Science Department of University of Cyprus.

Atari simulator for playing games with graphics was the final project of 2<sup>nd</sup> semester in Computer Science Department of University of Cyprus.

Different programs about biological information processing have been developed by me at 1<sup>st</sup> and 2<sup>nd</sup> semester in Computer Science Department of University of Cyprus.

Different games, image processing applications and compressing programs have been developed by me at 1<sup>st</sup> and 2<sup>nd</sup> semester in Computer Science Department of University of Cyprus.

Neural Networks for recognizing human written letters, prediction of electricity consumption per country, prediction for stock prices on stock market etc.

Compiler for recognizing, error reporting and compiling 'C-'programming language.

### **Interests**

I am interested in machine learning, deep learning, artificial intelligence, neuroscience, data science and cyber/information security. Also, i am interested in building custom personal computers with different kind of hardware and fixing different hardware/software problems on laptops/pcs/servers as well as mobile phones. Furthermore, i enjoy playing my guitar, singing, dancing as well as watching movies in my free time. Moreover, i have a deep love for sports cars.

My goal is to gain experience and learn from every part of life.