PANAYIOTIS KARACHRISTOU

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SUMMARY

Currently working as a Research Assistant in collaborative robot security. Recently Finished a Masters in Artificial Intelligence and Cybersecurity at the University of Sheffield. Completed BSc Hons Computer Science at the University of Portsmouth. Programming experience in Java, Python, Haskell and LUA.

EDUCATION

2018 - 2019   University of Sheffield - MSc Cybersecurity and Artificial Intelligence - Grade: Distinction

- Dissertation - AI and Intrusion detection systems, using machine learning algorithms.
- Machine learning and adaptive intelligence introduced, linear regression, Basis functions, Generalisation, Bayesian Regression, Unsupervised Learning, Naive Bayes and Logistic Regression. Which knowledge was further applied in scalable machine learning using Spark & HPC.
- Lastly was taught about text processing and natural language processing topics in which algorithms such as Perceptron, Structured Perception, Viterbi and Beam Search were implemented in order to solve problems such as, named entity recognition, language modelling and text classification.
- Learned about fundamental security properties and mechanisms and how to develop secure software.
- Implemented a fuzzer in python which had the ability to find vulnerabilities in a website with a grade of 75/100.

2015 - 2018   University of Portsmouth - BSc Hons Computer Science - Grade: First-class honours (1st)

The areas covered include programming, computer systems, networks and computer science theory.

Programming Experience:

- As a part of the final year project undertaken, developed an android application in a team of three, using Java, Android studio and EasyAR SDK (Augmented Reality), to produce a surveying tool with the ability to detect and show information about asbestos infected areas for Hampshire Scientific Services. With a grade of 66/100.
- Wrote a program in python that outputted patterns according to users input, with a grade of 93/100.
- Created a fully functional website using HTML and CSS. With a grade of 76/100. Used initiative to create additional features than those asked.
- Wrote a program in Haskell for a film ratings website 73/100.
- Worked in a three-person team and developed an order system for a box-selling company using Java. With a grade of 65/100.
- Worked in a 5-person team and developed a Digital assistant software using Java.
- Developed a colour and shape sorting robot using the LUA programming language in V-Rep, 86/100.

Other knowledge and experience gained:

- Understood the theory behind computer science which included learning about the Turing Machine, Computational complexity, P, NP, NP-Complete, NP-Hard problems and much more.
- Learnt the fundamental principles of computer networking topologies and professional standards and was introduced to plethora of topics including routing, mobility, and network security.
- Gained the knowledge of Systems Analysis Tools & Techniques, Database Design: DFDs, Data dictionaries, Decision Trees & Tables, ERDs, Normalisation and SQL
- Developed an in-depth understanding of data structures and the ability to use these data structures efficiently in problem solving.
- Created an humanoid model and animated it in 3DsMax
- Developed mathematical foundations useful in functional programming and practical applications.

LANGUAGES

- English: Fluent, GCSE - English as a Second Language
- Greek: Fluent, Native language

WORK EXPERIENCE

Dec 2019 – Present   Research Assistant in Collaborative Robot Security, University Of Sheffield – Sheffield, United Kingdom

- My duties include researching, attending conferences and developing software.
- Currently researching on creating threat models for collaborative robots.
- Goal of the project currently working on is to create intrusion detection systems for robots using machine learning.

Jul 2013 – Jun 2015   Guided missile operator, National guard of Cyprus, Cyprus Army – Cyprus

- After training, assigned to be a guided missile operator, which required operating specialist electronic equipment, accuracy, concentration and confidence.
- Worked into teams to accomplish a range of tasks. This developed team working skills.
- Worked under extreme pressure and circumstances.

Jun 2012 – Aug 2012   Sales and Repairs, "The Pc Store" – Polis, Paphos, Cyprus

- Installed, repaired, and upgraded desktop and notebook computers as well as printers.
- Managed the receptionist area, including greeting customers and assisting them to buy what they really need. This enhanced verbal communication skills and the ability to deal with customer problems.

OTHER INTERESTS AND ACTIVITIES

- Magic - Since childhood, self-thought and researched new tricks. Magic skills have come into very good use, through performing advanced tricks.
- YouTube - The content uploaded is mainly tutorials on magic tricks. Responsible for editing, recording, uploading videos, channel art and intros with adobe after effects, Sony Vegas and Photoshop.
  Listed is the channel link: https://www.youtube.com/user/TheBlackGoldVideos