Kyriaki Lagou

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EDUCATION

University of Southampton, Southampton, UK *Sep 2015 – Jun 2019*
MEng Computer Science | First Class, Honours

Churchill Academy and Sixth Form, Bristol, UK *Sep 2010 – Jun 2014*
A-Levels: Mathematics: A* | Physics: A | Chemistry: A | Fine Art: A

SKILLS

Highly Skilled and Proficient Java, Python
Proficient HTML5, CSS3, SQLite, React
Technologies Spring Boot, Maven, Flask-RESTful, Docker, pytest, Spock testing
Development Git, Agile development, Jira, Confluence,

EXPERIENCE

Publicis Sapient, Backend Software Engineer, London, UK *Sep 2019 – Current*

- Developing Java Spring Boot microservices that interact with Google Cloud PubSub and Kafka.
- Creating Helm charts for Kubernetes.
- Implemented React app for show-casing internal API functionality.

Cyber Range for Blockchain Platforms, Developer, Southampton, UK *Oct 2018 – Mar 2019*

- Built comprehensive taxonomy report covering the attack surface of Bitcoin and Ethereum.
- Built server side for bespoke cyber range using Flask RESTful. Carried out code reviews throughout cyber range development.
- Project manager for team of 4. Responsible for testing out Ethereum attacks using cyber range.

Hewlett-Packard (HP Inc), Security Research Intern, Bristol, UK *Jun 2018 – Sep 2018*

- Research-oriented internship focusing on network traffic analysis.
- Developed pcap parser (Java), for extracting meta-data from network packets.Data sourced from two years of network traffic captures, using Wireshark.
- Carried out data analysis (Python) and visualisation to determine common patterns in parsed data.
- Used unsupervised learning techniques (DBSCAN & SVM models) for network traffic classification. Successful in detecting various types of malicious traffic. Work was presented to research lab staff.

PROJECTS

Fair Division for Task Allocation Processes

- Designed and implemented web app for allocating tasks in novice Agile teams, utilising fair division algorithms. Graded at 86%. Personally invited to present at computing lab opening ceremony.
- Modelled algorithms as constrained optimisation problems using CPLEX. Built back-end using Java.
- Created dynamic front-end using HTML, CSS, JavaScript, and Java Server Pages. Used SQLite to handle database queries from client and server.
- Carried out user study involving 13 participants indicated system showed notable improvement on existing approaches.

Collaborative Filtering Recommender System

- Implemented collaborative filtering approach for predicting unseen user ratings of online dating profiles based upon relevant neighbours from a large data-set of 19 million records. Developed using Java and SQLite.

Neural Network to Identify Fraudulent Bank Notes

- Implemented single-layer neural network, in Python, for identifying fraudulent bank notes with over 99% accuracy.

Supervised Learning Techniques to Identify Diabetes and Breast Cancer

- Implemented and compared logistic regression and k-nearest neighbours algorithms (Python) in order to predict if a person has diabetes and malignant tumors.

Individual Selection for Cooperative Group Formation Investigation

- Explored social niche construction in populations of interacting ’cooperative’ and ’selfish’ agents.
- Used Python to model numerous ’evolving’ populations, explored population dynamics, and implemented novel ’family’ construction to more closely mimic real world social group construction.