MIRCEA MIHALEA

EDUCATION

University of Southampton, Hampshire, United Kingdom

M.Eng. Computer Science with Distributed Systems and Networks

2015-2019

- COMP6212 Computational Finance: understanding of financial sector and blockchain
- COMP3201 Cyber Security: understanting of security in computer systems and networks
- COMP3218 Game Design and Development: practical experience in developing games

PROJECTS

A PUF-enhanced blockchain-based Tracking System for Trustworthy Multi-Party Supply Chains

Fourth year group design project — Java, Golang, Node.js, Hyperledger Fabric, Docker

- Project combining hardware and software to ensure supply chain security
- Blockchain system built in Hyperledger Fabric with Golang library
- RESTful API built in Node.js with Express.js and Fabric Node API
- Client GUI application built in Java with JavaFX and Apache RXTXComm
- Project manager in an agile environment, working with two teams, supervisors and a client from Defence Science and Technology Laboratory

Interactive code presentation for large groups of people using distributed computing

Third year individual project — Java

- Research project into how peer to peer networks can be applied in scenarios similar to streaming

Deerkat - website scraping and data analysis

Java, Gradle, JavaFX, JSoup

- Desktop application used to extract transactions from online banking statements to analyse and categorise them based on previous statements and user input
- Can output data in a CSV file which can be imported into YNAB 4 for further analysis

Apex - self hosted linux server

Ubuntu Server, Bash, Docker

- Self built and self managed headless Ubuntu server providing a variety of private and public services
- Docker used to manage multiple containers to enable easier backups, management and replication
- Serving multiple purposes: file server, security camera NVR, VPN, and software testing environment

Publications

Journal paper — under peer review

A Supply Chain Management System for Counterfeit Mitigation using Blockchain and PUF

L. Aniello, B. Halak, P. Chai, R. Dhall, M. Mihalea and A. Wilczynski

To be published in *Transactions on Services Computing*

RELEVANT

Continental Powertrain, Brasov, Romania

EXPERIENCE

IT Department Intern

2014

- Gained an understanding of the inner workings of a modern factory's departments, from human resources to IT, from maintenance to production.
- Shadowed the Head of IT in his day to day tasks

American Computer Science League, Pennsylvania, USA

Second Place in the Junior 5 Division

2013

Gained a deeper understanding of a variety of subjects such as algorithmics, boolean algebra, digital electronics, graph theory and data structures.

ACTIVITIES & Interests

Southampton Global Game Jam	2019
Space Cadets, member of an advanced programming society	2015
"Grigore Moisil" Computer Science Regional Contest, Romania, several distinctions	2011-2015
National Physics Symposium, Romania, third place in a cross-discipline project	2013
Cisco IT Essentials, hardware and software	2012
National Computer Science Olympics, Romania	2012

SKILLS

Languages: Romanian — native, English — C2, German — A2 Software proficiencies: LaTeX, Linux, Java, C#, Python, Docker