Nikolaos Karaolidis

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EDUCATION

Sep 2020 – Jul 2024

M.Eng. in Computer Science

University of Manchester, UK

2nd Year Average: 81%

Sep 2014 – Jun 2020

High School Diploma 12th Grade Average: 96% VARVAKEIO PUBLIC MODEL HIGH SCHOOL, GREECE

PROJECTS

Ongoing

Personal Homelab

Adapted an old PC into a **Linux Server** for 40+ applications. Mainly used as a way to learn the latest technologies, practice new skills, and as a host for personal projects.

- · Arch Linux as the base OS with MergerFS and SnapRAID as a storage and backup solution.
- · Docker, Docker Compose, and Portainer as a container engine and management system.
- Cloudflare Argo Tunnel, Nginx, and Let's Encrypt for hosting, proxying, and SSL certificate automation.
- · Grafana, InfluxDB, and Telegraf for constant system monitoring, stats visualization, and email alerts.
- · DevOps Stack including a self-hosted GitLab instance and VSCode server.
- Public and private Wireguard instances and a Tor relay for remote management and privacy.
- Full-stack media management server including indexing, file downloading, metadata editing, and a
 personal streaming service.
- Much more, including a blog, a private cloud service for family/friends, and a URL shortener.

Sep 2022 - Apr 2023

Wayfinder

Third Year University Project. Collaborated with a research group from Lancaster University to develop an **OS performance evaluation platform**. Built using Go and Python.

- Designed experiments to benchmark performance of network-based applications such as Apache and Caddy.
- Implemented multiple-architecture support using the QEMU virtual machine emulator, focusing on x86-64 and RISC-V.
- Conducted testing and analysis to derive a memory-optimized Linux kernel configuration.
- Performed maintenance and bug fixes on the Go codebase and reduced experiment runtime using RAM-based filesystems.

Sep 2020 - Jun 2021

EazyShop

First Year University Project. Worked in a 6-person team to implement a full-stack shopping list application. Built using Python, Flask, HTML, Bootstrap, and MySQL.

- · Configured and hosted a shared MySQL database using Docker for portability.
- Implemented web scrapers using Python for the 6 largest UK grocery store chains. Used to extract, parse, and import stock, pricing, and descriptions from all available products.
- Integrated the MySQL back-end with the Flask front-end and deployed the app using Docker Compose.

Jul 2019

CV Parser Script

Developed a **Python CLI Tool** that extracts, parses, and saves useful information from .pdf, .doc, and .docx CVs in a **FileFinder** database.

- · Simple XML parsing for extracting information from Microsoft Word documents.
- Optical Character Recognition with OpenCV for extracting information from read-only PDF documents.
- Natural Language Processing using NLTK for categorizing text tokens such as names, addresses, or skills.
- · PyAutoGUI for database interactions, due to limited database access which prevented API use.

Internships & Volunteering

Jun 2022 - Aug 2022

Softwire, Manchester Office, UK

Working with some of the UK's leading brands, Softwire designs tailored software and delivers innovative digital engineering expertise.

- Co-developed a web app using React Native, Typescript, AWS Lambda, and AWS DynamoDB in a 6-person team.
- · Participated in daily stand-ups, retrospectives, sprint planning, and review meetings.
- Authored clean and maintainable code which was tested using unit, integration, and end-to-end testing.

Jul 2019

InterSearch Worldwide, Dubai Office

Ranked among the 30 largest executive search firms in the world, InterSearch Worldwide has 90 offices in 50 different countries.

- · Automated Candidate CV and Financial Documentation Entry using the parser script.
- Refined E-mail spam filter.

Jan 2017

Nation-wide Bone Marrow Donation Volunteering Action

Created a promotional video using Adobe Premiere Pro for a nation-wide voluntary action to increase awareness about bone marrow donations.

LANGUAGES

· Native: Greek, Serbocroatian

• Fluent/C2: English

• Beginner/B1: German