Sami Hatoum

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Summary Statement — Methodical software engineer, committed to rigorous testing and thorough documentation, ensuring robust system reliability and seamless team collaboration

Skills

Languages Java, JS, Python, C, C++, SQL Frameworks Flask, React, NextJS, NodeJS AI Libraries Scikit-learn, TensorFlow, PyTorch Modelling UML, ER, DOM, FSM, Flowcharts DevOps Docker, AWS, Git, Jira, Trello Testing Pytest, JUnit, Jest, Gremlins

Experience

PricewaterhouseCoopers (PwC)

Aug 2024

Client-Side Consulting Intern

- Collaborated full-time on-site of a client as part of an Agile team, evaluating business operations to identify 120 risks of varying severity and uncover £20,000 in annual cost-saving opportunities
- Conducted comprehensive market and financial analysis to support the development of a new air cargo facility
- Spearheaded the conceptual design of the facility, integrating advanced technologies, sustainability measures, and
 efficiency strategies to achieve an 18% reduction in operational costs
- Oversaw the implementation of a £5 million project, managing timelines, resource allocation, and ensuring business continuity during the transition

PricewaterhouseCoopers (PwC)

Jun 2023 - Jul 2023

Digital Consulting Intern (AI)

- Collaborated on an NLP system for sentiment analysis with senior team members (TensorFlow)
- Integrated the model into the client's data infrastructure for real-time insights from unstructured data
- Managed end-to-end processes, including data pipelines, pre-processing, and feature extraction (DataIku)
- Oversaw training, validation, testing cycles, and ongoing model monitoring for production reliability

Education

University of St Andrews

Bachelor of Science in Computer Science - Predicted Grade (First)

British International School of Riyadh

A Levels - Computer Science (A), Mathematics (A), Physics (A), Economics (A)

Projects

Food Waste Management App

Jun 2024 - Present

- Developing a food waste management web-app for grocery tracking and reducing waste (React, Node.js, PostgreSQL)
- Integrating AI-driven image recognition for grocery input via photos (TensorFlow, OpenCV)
- Implementing personalised recipe suggestions based on inventory (Suggestic REST API)
- Adding food preservation tips to promote sustainability
- Notifying users when their groceries are close to expiry
- Focusing on clear UX/UI to better address environmental and consumer needs (Figma)

PCG Research Project

Sep 2024 - Present

A procedural level generation tool for Sokoban, combining pseudo-random generation, bijective entity-mapping, and a
Two-Archive evolutionary algorithm to balance minimalism and diversity. The tool produces diverse, playable puzzles of
varying difficulty, validated by solvers (Java)

Cryptographically Secure File Server

Nov 2024

 A zero-knowledge, zero-trust file server. This server has no access to unencrypted data, file-keys, or filenames, with multi-layer encryption and granular access control. Built both client and server components, focusing on secure data handling, key exchange, and minimal UX/UI (Java)

Machine Learning Automated Algorithm Selection

Nov 2023

An automated algorithm selection tool using MAXSAT12-PMS data, predicting the most effective solver per instance.
 Compared models against SBS/VBS baselines, applying classification/regression, feature normalisation, and hyper-parameter tuning to improve accuracy (Python, Scikit-learn)