Kyle Pullicino
Software Developer, Leader & Innovator

Background

A skilled software developer with over **thirteen years** of experience in the software industry.

Currently **Java Technical Lead** at Haud Systems Ltd, after leading and managing a software company in Malta that I founded for five years.

Passionate about **software craftsmanship principles**, computer science and learning new programming languages and techniques.

Education

Master of Science (MSc), Computer Science
The University of Edinburgh

Bachelor of Science (B.Sc.), Information & Communications Technology
University of Malta

Technologies

Python	FastAPI	Django
Java	Spring Framework	Kotlin
JavaScript	TypeScript	React
Svelte	Kafka	MongoDB
AWS	Docker	RabbitMQ
ClickHouse	Azure	Kubernetes

Skills

`<java>`

I am experienced in building **Java** or **Kotlin** applications, using the **Spring Framework** and **Spring Boot**. I'm also well versed in using Java tools such as **Maven, Gradle, JUnit 5, Hibernate, the Akka framework, Axon,** and **jOOQ**.

`</java>`

`<python>`

I am an expert at building **Python** applications using **Django, Pydantic, FastAPI** and **Poetry**. I'm able to use Python to build data processing applications using libraries such as **pandas** and **scikit-learn** running on tools such as Apache Spark.

`</python>`

`<frontend>`

I have built responsive and highly-performant frontend applications using **React, Svelte, HTML, CSS** and **Typescript**. I'm familiar with the techniques behind compiling, packaging and hosting frontend applications.

`</frontend>`

`<cloud>`

I have hosted complete distributed applications, with high-availability requirements on both **Amazon Web Services (AWS)** and **Microsoft Azure**. Among other things, I'm capable of setting up entire applications running on **AWS ECS**, starting by setting up the appropriate **VPC, EC2 instances** and firewall settings. In general, I'm extremely knowledgeable about all of the AWS products and the good practices behind maintaining an AWS setup.

`</cloud>`

`<tools>`

I am familiar and have extensive experience with all the typical software development tools such as **git, Jenkins, Concourse, Docker, Kubernetes, Confluence, Redmine** and **JIRA.** When working in a team, I've used **agile software development methodologies** to great success.

`</tools>`

Projects

This page showcases a selection of my most favourite projects that I personally worked on with a short description of the technology behind them.

Insulae: Condominium Management System

Serverless Python Application on AWS

At Phalanx Software, I developed an online management system for condominium administrators in Malta completely running on **AWS serverless technologies** (eg. AWS Lambda, AWS Fargate, AWS S3, etc). I put together the system's architecture and specifications and directed the team developing the application.

The application used **Python and React**, with the data stored on **MongoDB**. To prevent the initialization latency that is characteristic of **AWS Lambda** applications, I developed a singular facade abstraction that allows the entire application to run inside a single lambda function without compromising on the code's readability and structure. The entire application was automatically deployed using **Terraform** and **Concourse** pipelines.

Phalanx Software Ltd

March 2024

Excava Rewards

iGaming Promotions Management System

Excava Rewards is a product that allows users to easily manage online gambling promotions. The main challenge was for the system to receive and process **over a thousand gambling transactions per second,** and then aggregate all that information into usable player analytics in **real-time.**

To achieve this, I built a system that made use of **Apache Kafka** to store all incoming transactions and aggregate all the transactions into an OLAP database, known as **ClickHouse**. ClickHouse allowed us to generate player analytics quickly and issue rewards depending on the player's profile, in real-time. The system was hosted in **Docker** containers running on **AWS ECS**, written using **Python** and **React**.

Client:
Lindar Media Ltd.

August 2022

Mayan EDMS Deployment

Cloud Electronic Document Management System

In this project, I developed **Terraform** modules to completely deploy and maintain an installation of **Mayan EDMS** on **Microsoft Azure** for a governmental authority. The Terraform module allows users to quickly and reliably make software updates, take backups and apply changes without requiring manual interactions with **virtual machines** or the **Azure Console**.

Client:
Malta Statistics Authority

May 2021

Game Provider Integrations Protocols

Standardization Project for Third-Party Suppliers

I developed an entirely new integration protocol for the client using **OpenAPI** and **Swagger**. This allowed MrQ to consolidate new third-party integrations into their own service application and for the system to autoconfigure itself as integrations were installed. Most importantly, new integrations following the protocol were completed in one week, using **Java** and **Kotlin:** a massive improvement over the four weeks that they took, originally.

Client:
Lindar Media Ltd.

August 2021

XBRL Tagging for ESEF

Custom Tool for Tagging Financial Statements

I developed a **Python** tool allowing users to easily add tags to an **XHTML** file in accordance with the **EU's ESEF regulation**. The result is a perfectly valid **XBRL package,** containing tagged corporate financial statement, that can be submitted to regulatory authorities. The tool reproduced the same tagging across runs, allowing users to make substantial changes to the XHTML content and retag quickly, if necessary.

Client:
Grant Thornton Malta

March 2020

BankID Integration

Payments with Strong Customer Authentication

During this project, using **Java**, I implemented a new payment method for online gambling players allowing them to use **BankID.** BankID is a popular **strong customer authentication** mechanism in Sweden. BankID allows players to make a deposit directly through their bank. This saved the company a large amount of **payment processing fees, fraud claims and claims related to stolen accounts** for players in Sweden.

Casumo Services Ltd.

February 2019

Grawnds.com

Online Booking System for Football Pitches

My earliest AWS application involved the development of an online booking system for football pitches. The application was built using **Java, Spring Framework** and one of the earliest versions of **Spring Boot**. The application ran on **AWS EC2** instances and a **MySQL database** running on **AWS RDS.** The application used **Twilio** to inform pitch owners and customers of upcoming bookings by SMS. A lot of football pitch owners in Malta were signed up but, ultimately, I had to withdraw the system because it was not feasible business-wise.

November 2014

Experience

Joined
Haud Systems Ltd.
Technical Team Lead (Java)
February 2025

Founded

Phalanx Software Ltd.

Director & Software Developer

August 2019

Led a team of up to five software developers
Developed new business for the company
Oversaw payroll, accounting and other business functions

Technology I used: Java, Kotlin, Python, React
Terraform, Microsoft Azure, Kafka, AWS ECS,
ClickHouse, MongoDB, Concourse, SOAP, JSON

Joined

Casumo Services Ltd.

Systems Developer

November 2016

Casumo is a regulated online gambling operator
Part of the platform team, maintaining player wallets
Developed new integrations with third-party game suppliers

Technology I used: Java, Spring Boot, Spring Data JPA,
RabbitMQ, ElasticSearch, AWS, MySQL, Docker, Kubernetes
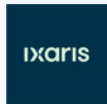
Rejoined

Ixaris Systems (Malta) Ltd.

Software Developer

October 2015

Ixaris was a licensed financial institution
Part of the product team, working using Agile
Developed remittance products for companies

Technology I used: Java, Spring Framework, Hibernate,
JUnit 5, Maven, Protobuf, OpenAPI, JBoss, git, Jenkins, Jira

Delivered tutorials in
Mathematics for Discrete Structures
University of Malta
October 2015

Graduated

Master of Science (MSc.), Computer Science

The University of Edinburgh

September 2015

Subjects included:
Quantum Computing,
Artificial Intelligence, Machine Learning
Final project was about Compiler Optimization
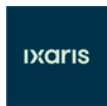
Joined full-time

Ixaris Systems (Malta) Ltd.

Junior Software Developer

September 2013

Graduated

Bachelor of Science (BSc.),

Information & Communications Technology

University of Malta

September 2013

Subjects included:
Software Development Techniques,
High-performance Computing
Final project was about Image Compression
Techniques

Won 1st Place
Microsoft Imagine Cup 2012 (Malta Finals)
and then traveled to Sydney, Australia for the Global Finals
May 2012

Joined
Ixaris Systems (Malta) Ltd.
Software Development Intern
July 2010