# Thomas Stirling

## Software Engineer

Website

tmstrlng.com

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**GitHub** 

github.com/tomstirling19

**GitLab** 

gitlab.com/tomstirling

Interests

Data

AI, ML (Neural Nets & LLM) Art (Sketching), Film Gaming, Music Tennis, Hi<u>king, Football</u>

## **Summary**

Experienced software engineer with 4 years worth of contribution to Space & Defence, Medical, Security and Gambling projects. Adept at quickly learning and adapting, with strong proficiency in technical software engineering and a goal to advance further in the field.

## **Experience**

#### Sky Betting and Gaming

Software Engineer, REP (Real-Time Events Processing) - (August 2023 - Present)

- Currently involved in the complete rewrite of one of Sky Bet's most popular features, AccaFreeze. This end-to-end project includes concurrent reading from multiple Kafka streams with sharding optimization, utilising a Cassandra datastore for managing active bets. Including complex logic for bet processing [Java 21, Kafka, Cassandra].
- Contributed to the development of a Horse Racing Meta-data application that efficiently consumes, transforms, enriches, and publishes real-time horse racing data for consumers. Implemented a high-performance message stream using Kafka as a message store, with a hash store for efficient update checks [Kotlin, Kafka, Spring Boot].
- Maintain a range of real-time event processing applications within a large stack, including participation in on-call duties and helping onboarding new team members [Kotlin Spring boot, TypeScript, Node, Kubernetes, MongoDB].
- Contributed to a company-wide transition to new platforms, integrating into a new team within Sportsbook to learn, develop, and establish processes on these platforms. These processes were later used to onboard the remaining team members.

#### **Ascent**

Software Engineer - (August 2022 - July 2023)

- Contributed as a full-stack engineer to a G4S client project, developing a security system
  to manage identities and building access, in an international environment. Played a key
  role in feature development of multiple modules (Identities, Alarms and Core), providing
  the primary functionality [C#, .NET].
- Successfully contributed to the completion of the G4S project, passing user acceptance testing. Communicated with G4S in order to refine and adjust the application. Developed strong skills in client interaction and expertise in the Microsoft tech stack.

### Airbus Defence & Space

Graduate Software & Data Engineer, Ocean - (September 2021 - August 2022)

- Contributed as a full-stack engineer, towards an internal, international Airbus web application used for storing and manipulating space equipment and mission data.
   Specifically, contributing to the front-end development and also back-end functionality for data processing [Angular 13 & Java 11].
- Completed an internal project, contributing towards hardware development of a prototype 'Rover', and creating a self-developed application [Python, Node.Js & Vue.Js].
- Developed an R&D project, exploring a range of methods for visualising and manipulating dataset dependencies, within vast project datasets. Primarily integrating Angular visualisation libraries into the project's web application.

#### Bytemark Hosting

Junior Software Developer - (July 2018 - July 2019)

 Contributed as a full-stack engineer, developing and testing features for a cloud server management application and the Bytemark CLI client [Ruby, Go, AngularJs].

#### **Vans**

Sales Assistant - (March 2015 - August 2016)

#### **Education**

## University of Leeds (September 2016 - July 2021)

MEng & BSc Computer Science, 1st class honours.

- MEng Contributed greatly towards a medical image analysis application, in partnership with the NHS. Utilised a multi-model neural network to first segment X-ray images of wrists, labelling each bone. Furthermore, it utilised the segmented image to detect and locate fractures within the X-ray, outputting a heatmap and report on the fracture.
- BSc Created an autonomous robot assistant utilising robotics and computer vision, navigating a user to a precise position within a mapped environment. Featured facial recognition based authentication and object detection based goal determination.

## Selby College (September 2014 - July 2016)

BTEC 90 Credit Extended Diploma: IT - D\*D\*D\* (Equivalent to A\*A\*A\*).

#### Skills

#### **Programming Languages:**

JavaKotlinGo

PythonC#TypeScript

#### Frameworks:

Spring Boot
 Angular 12+
 React / React native
 Node.Js
 TensorFlow & Keras
 PyTorch

#### Other:

Kubernetes – Docker – Kafka – Redis – SQL – MongoDB – Cassandra – Git – AWS Jenkins – ElasticSearch – Grafana – GraphQL – REST – OpenCV – IntelliJ – VSCode.

#### Methodologies:

Agile - OO - TDD - Lean - DevOps.

Employer and academic references available upon request.

University transcript available upon request.