

Elliot Lake

+447908902629 | elliottlakejobinterviews@gmail.com | LinkedIn: <https://www.linkedin.com/in/elliott-lake-016360132/> |
GitHub: <https://github.com/TercioOfParma>

EXPERIENCE

Junior IT Developer (Full Stack Developer)

March 2023 – Present

Port of Dover

Dover, Kent, UK

- **Tech Stack 1:** C# .NET, Blazor, EF Core, Radzen, NUnit, SendGrid, Azure Service Bus, Microsoft Azure, Bootstrap, ASP .NET REST API, Azure Devops, MS SQL
- **Tech Stack 2:** C# .NET, JQuery, Microsoft ASP.NET MVC, EF Core, SendGrid, Microsoft Azure, Bootstrap, MS SQL
- **Tech Stack 3:** Vue.js, PrimeVue, Python 3, Javascript, Pytorch, Scikit-Learn, Ollama, NLP libraries like Spacy, FastAPI
- **DoverTides:** This software provides predicted tidal heights and the adjusted heights of ship doors to harbour masters, so that proper times for cargo and cruise vessels can be determined, enabling £144bn in business to dock at the port. I wrote the whole system with **Tech Stack 1**, with Chart.JS used to display tidal heights. I wrote this with some oversight.
- **Phonebook:** This integrates Azure Active Directory information with a telephone database, so that Reception can find contact details for employees, and is now the standard way of doing so. This uses **Tech Stack 1** and Dapper. I wrote the whole system with some oversight.
- **Cargo Report System:** This website takes in Inbound and Despatch information from the Cargo Department and calculates stock levels and provides excel result. This uses **Tech Stack 1**, with ClosedXML for spreadsheets. I wrote the system with some advice from senior developers and negotiated requirements with the client directly.
- **Authorisation to Work:** This system now handles all of the incoming contractors who do work on port land. This includes scheduling, approvals of insurance documents and human resource management. This is written with **Tech Stack 1**. While simultaneously collaborating with stakeholders, I wrote modules to handle insurance, contractor qualifications and work request documentation. I also wrote the notification system, and many other parts of the system. I also wrote the documentation for the whole system. I also assisted running the in person training for many of the port employees that now use it. This also involved Pair Programming with a senior developer, who had overall technical ownership of the project and an intense focus on SOLID principles and Design Patterns.
- **GSSAT:** These systems provide security training for all employees and contractors who come into the port, a necessary requirement for thousands of workers to maintain the security of our operation. I maintained these systems, providing substantial upgrades to internal content and assessment evaluation. The older system was written in **Tech Stack 2**, while its upgrade was written in **Tech Stack 1**.
- **Learning Platform:** This system is intended to provide a generic service to handle all trainings that the port may want its employees or contractors to carry out. Currently, it only handles contractor training for handling dangerous materials. I wrote the vast majority of this system, using the upgrade for GSSAT as a base.
- **AI Prediction System:** Under an AGILE SCRUM management methodology, this system provides a web interface for a Neural Network based AI written in Python 3, which is used to provide predictions (Not permitted to share what). This was written entirely by myself with **Tech Stack 3**.
- **Incident Data Analysis:** This collection of scripts was written to try to extract categorical data from historical incident report, so that our Health and Safety department can find patterns in repeatedly occurring incidents. I wrote this AI based system with **Tech Stack 3** omitting Vue.JS
- **AI Prompt Service:** This system is intended to provide a service that other services can use to prompt AI models like ChatGPT in an orderly way. Currently being developed to assist in background checks for Operational Security. This is written with **Tech Stack 3**, potentially utilising other libraries like CrewAI in future. It consists of a Vue.JS frontend and ASP .NET REST API backend.
- **Onboarding New Developer:** I wrote a small test in **Stack 1** to test a developer who has since joined the Port and GitHub actions associated with it. Currently helping him get up to speed.

Founder

January - March 2023

Venturus ad Noctem

Faversham, Kent, UK

- I built a system, which is called the LaTeX Latin Glosser, which creates beginner friendly PDF texts for those learning Latin. These were sold on a subscription basis.
- **Tech Stack** Python 3 standard library, L^AT_EX

Software Engineer

September 2022 - January 2023

Hamiltonian Dynamics

Cheltenham Spa, Gloucestershire, UK

- Assisted building a microservice based system to provide the police with an easy way of analysing sensitive data in a user friendly format. I had responsibility for the text processing and image analysis modules in this system. Collaborated with a Team of 6 people, including a lot of Pair Programming and Code Reviews
- Gained a SCRUM Master qualification here
- **Tech Stack:** Agile Scrum, Docker, Python 3, Spacy, Geopandas, Yolov5, Elasticsearch, Opensearch, Jira, Linux subsystem for Windows

Associate Software Developer

January 2022 - September 2022

Certinia (at the time Financial Force Ltd)

Harrogate, North Yorkshire, UK

- Assisted building aspects of their Professional Services Automation platform, which is a plugin for the Salesforce CRM. I worked on the Gantt Chart component and other tools for Project Management, while maintaining the CI/CD pipeline, with a team of 5 other developers. This collaboration involved SCRUM, Pair Programming and Code Reviews
- **Tech Stack:** Apex, Lightning Web Components, Javascript, HTML/CSS, Git, Jenkins, Agile Scrum, Jira, Internal SQL clone called SOQL

Assistant Lecturer

September 2021 - January 2022

University of Kent

Canterbury, Kent, UK

- Taught, graded assignments and advised students on a module called Algorithms, Correctness and Efficiency (introduction to algorithms effectively) and another module on IoT.

Computing Intern (Effectively Web Developer)

July - December 2018

Hemlow Ltd

Sevenoaks, UK

- Built web forms to assist with billing.
- **Tech Stack:** Python 3, Django, MS-SQL, Bootstrap

PROJECTS

Reader's Edition C# .Net, Blazor, Radzen, LaTeX, Wiktionary API

July 2024 – Present

- Developed a full-stack web application to generate texts with hard words provided with definitions selected by a user from Wiktionary.

Text Difficulty Site and API C# .Net, Blazor, Radzen, EF Core, HTMX, Scriban November 2023 – January 2024

- Developed a full-stack web app using to determine the difficulty of provided texts in any language provided. Stress tested to 40 concurrent users.

Thomistic Narrative Generator Java, Git, Evolutionary Algorithms

May 2018 – May 2020

- Developed a system which generates Lives of Saints on the basis of their habits and how they develop during life.

TECHNICAL SKILLS

Languages: C#, Python, Java, C/C++, Apex, Javascript, HTML/CSS

Frameworks: Vue.JS, Blazor, Salesforce Lightning Web Components, HTMX, ASP .NET Web API, ASP .NET MVC, FastAPI

Developer Tools: Git, Docker, VS Code, Visual Studio, Microsoft Office, Jira, Microsoft Dev Ops, Microsoft SQL Server, Jenkins

Libraries: Sendgrid, EF Core, Dapper, ClosedXML, Microsoft Graph, PrimeVue, Axios

Misc: SOLID, Design Patterns, Clean Code, AGILE, SCRUM, System Architecture, Software Development Lifecycle, CI/CD pipelines

EDUCATION

University of Kent, Canterbury

Canterbury, Kent, UK

MSc in Advanced Computer Science (Computational Intelligence), Distinction Grade September 2020 – September 2021

University of Kent, Canterbury

Canterbury, Kent, UK

BSc in Computer Science (Networks), 2 : 1 September 2016 - July 2020

REFERENCES

University of Kent, Canterbury

Canterbury, Kent, UK

Dr Anna Jordanous, Line Manager at The University of Kent

a.k.jordanous@kent.ac.uk

Hamiltonian Dynamics

Cheltenham Spa, Gloucestershire, UK

Robert Dimond, Line Manager at Hamiltonian Dynamics

robert.d@hdcorp.co.uk