

# DUDLEY SPENCE

FULLSTACK DEVELOPER

RIGHT TO WORK IN FRANCE

+33 7 45 39 75 27

[dudley@dudleyspence.com](mailto:dudley@dudleyspence.com)

Paris, France

<https://github.com/dudleyspence>

[www.linkedin.com/in/dudleyspence](http://www.linkedin.com/in/dudleyspence)

<http://www.dudleyspence.com>

## PROFILE

Problem-solving enthusiast and driven Software Engineer with a proven track record of developing and implementing innovative software solutions. Experienced in full-stack development and thriving in agile environments, I deliver projects that enhance user experiences and address complex challenges.

**Career Objective:** I am seeking a software engineering position within a dynamic team in Paris or remote. Eager to contribute my technical expertise and innovative approaches to drive impactful projects and collaborate with forward-thinking professionals.

## EDUCATION

### Northcoders Software Engineering Course (Full-time 3-months) | Graduated Sept 2024

- **Excelled in full-stack development**, building interactive web applications using React, JavaScript, CSS frameworks, and Node.js, while implementing best practices like component design, state management, and RESTful APIs for efficient and scalable solutions
- Demonstrated proficiency in Git version control, Test-Driven Development with Jest, and Agile methodologies to continuously improve code quality and teamwork

### Master Of Science in Computer Science | University of Liverpool | Graduated Sept 2021

- Achieved **Distinction** (80%) ~ 4.0 GPA
- Relevant coursework: Solving the N-puzzle using a Deep Q-Network
- Modules: Programming Fundamentals, Database and Information Systems, Machine Learning and Bioinspired Optimisation, Computational Intelligence, Web Programming, Ontologies and Semantic Web, Technologies for e-Commerce

### Bachelor Of Science in Chemistry with Medicinal Chemistry | University of Newcastle | Graduated Sept 2019

- Achieved Upper Second-Class Honours (2:1)

## SOFTWARE PROJECTS

### TrailTalk (Dec 2024) – Fullstack Developer

Tech Stack: React, TailwindCSS, FirebaseAuth, Axios, Node.js, Express.js, PostgreSQL

Live: <https://trailtalk-production.up.railway.app> | Frontend Repo: [GitHub](#) | Backend Repo: [GitHub](#)

- **Architected modular React components and leveraged custom hooks** (e.g., useArticles) to centralize API logic, ensuring clean, maintainable, DRY, and scalable code.
- **Implemented dynamic routing and optimistic rendering** to create a seamless and responsive user experience, enabling smooth navigation and faster perceived interactions across the application.
- **Engineered a robust and maintainable backend API** using a Model-View-Controller structure, enhancing code readability and separation of concerns
- **Achieved 97%+ test coverage using Jest**, guaranteeing robust code quality and error prevention, while ensuring 100% of commits passed automated tests with Husky pre-commit hooks

## Peace Of Mind (Oct 2024) – Fullstack Developer

Tech Stack: React, Redux, JavaScript, Axios, TailwindCSS, Node.js, Express.js, MongoDB

Live: <https://peaceofmind-fe-production.up.railway.app> | Frontend Repo: [GitHub](#) | Backend Repo: [GitHub](#)

- **Implemented React Redux** for efficient state management, removing prop drilling and improving application performance.
- **Ensured scalability and flexibility** of data storage for users, care plans, and task logs through use of MongoDB.
- **Designed responsive and accessible UI components** with TailwindCSS, enhancing the user experience across all device types.
- **Architected a complex login system** using Firebase Auth, allowing users to log in as either carers or guardians with distinct account permissions and access views.

## TravelSync (Aug 2024) – Fullstack Developer

Tech Stack: React, JavaScript, Axios, Firebase, Python, FastAPI, MySQL, SQLAlchemy

Live: <https://travelsync-fe-extended-production.up.railway.app> | Frontend Repo: [GitHub](#) | Backend Repo: [GitHub](#)

- **Led a team of 4 developers** to complete a collaborative project using Agile methodologies and Git for version control
- **Learned FastAPI within 2 weeks** and developed a comprehensive backend API utilising SQLAlchemy for Object-Relational Mapping (ORM), Pydantic for data validation and integrating MySQL for efficient data storage and retrieval in Python
- **Spearheaded the creative design process**, ensuring adherence to colour-contrast accessibility standards for an inclusive user experience
- **Integrated and optimised Google Places API usage** to securely fetch and transmit location data between the database and frontend, while minimizing costs and improving application performance

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## SKILLS

- **Programming Languages:** JavaScript, Python, SQL
- **Front End:** React, React-Router, Next.js, HTML, CSS, Axios, TailwindCSS
- **Back End:** Node.js, Express.js, FastAPI, API Development
- **Technical Skills:** Object-Oriented Programming, Web design, Web applications, Functional Programming, Test-Driven Development, Machine Learning, Scalability, Code Quality, Version Control
- **Databases:** MySQL, PostgreSQL, SQLAlchemy, MongoDB
- **Tools:** Github, Jest (Testing), Firebase, npm, Tensorflow, Numpy, Vite
- **Transferable Skills:** Verbal Communication, Teamwork, Leadership, Agile methodologies, Organisational, Attention to Detail, Problem Solving Skills, Project Management, Ambition, Active Listener, Creativity
- **Spoken Language:** English (Native)

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## WORK EXPERIENCE

After completing my degree, I travelled and worked temporary jobs to fund the journey. These experiences broadened my perspective, improved my adaptability, and reinforced my desire to pursue a career in software engineering.

### Asahi Beverage Company | Aug 2023 – May 2024 | Perth | Logistics Operations

- **Identified a critical defect in 50% of Pepsi stock** set for dispatch, averting a potential financial loss, earning recognition as **National Quality Champion for the month**

### HMRC (via Brook Street Agency) | Oct 2021 – Mar 2022 | Remote | Tax Administration

- Efficiently digitised large volumes of paper tax returns, demonstrating speed and accuracy in handling structured data entry, a skill that translates to managing data in modern systems

### ILTSC | June 2019 – Sept 2020 | Ilkley | Duty Manager

- **Maintained high customer satisfaction** by resolving conflicts and managing team responsibilities, demonstrating a problem-solving mindset that I continue to apply in my work today