# **DUDLEY SPENCE**

# **FULLSTACK DEVELOPER**

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**Full-Stack Developer** with a strong foundation in building scalable, high-performance web applications using modern frameworks like React, Node.js, and Next.js. Skilled in both front-end and back-end development, including integrating APIs and delivering intuitive user experiences. Currently seeking my **first career role** in **Paris** to contribute to impactful projects and collaborate with a forward-thinking team.

# **EDUCATION**

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

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

Achieved Upper Second-Class Honours (2:1)

## PROFESSIONAL DEVELOPMENT

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

## SOFTWARE PROJECTS

TrailTalk (Dec 2024) – Fullstack Developer

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

Live: https://trailtalk-production.up.railway.app | Frontend Repo: GitHub | Backend Repo: GitHub

- Architected modular React components and developed custom hooks (e.g., useArticles) to centralise API logic, ensuring scalable code that follows DRY principles
- **Implemented dynamic routing and optimistic rendering** for smooth navigation and a responsive user experience with faster perceived interactions
- Engineered a robust and maintainable backend API using a Model-View-Controller architecture
- Achieved 97%+ test coverage using Jest, ensuring high code quality and minimising errors, while enforcing 100% commit compliance using Husky pre-commit hooks for automated testing.

Personal Portfolio (Dec 2024) - Frontend Developer

Tech Stack: Next.js, TailwindCSS, next-intl, Canva

Live: www.dudleyspence.com | Frontend Repo: GitHub

- Leveraged Server-Side Rendering (SSR) and static rendering significantly enhancing performance
- Internationalised all site content using next-intl to support French and English
- Scored greater than 94+ lighthouse score for Performance, Accessibility, Best Practices and SEO on all pages of the site

Peace of Mind (Oct 2024) - Fullstack Developer

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

Live: https://peaceofmind-fe-production.up.railway.app | Frontend Repo: GitHub | Backend Repo: GitHub

• Architected a complex auth context with 2 different account types using Firebase Auth and React Context API

- · Refactored to use React Redux for global state management, removing prop drilling and improving scalability
- Managed complex data manipulation involving date and time for dynamic routing, storage of historical tasks and leveraging Agenda.js to schedule and track tasks efficiently

#### 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 four developers to successfully deliver an MVP ahead of schedule within the two-week project timeline.
- Spearheaded inclusive design efforts, ensuring adherence to WCAG color-contrast accessibility standards
- Slashed API usage costs by implementing on-demand data fetching from the Google Places API, reducing unnecessary calls and boosting overall app performance

#### **SKILLS**

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

## **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

• Achieved National Quality Champion for the month by identifying a critical defect in 50% of Pepsi stock, preventing financial loss and demonstrating attention to detail and problem-solving skills

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

Managed large volumes of sensitive data with speed and accuracy

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

 Resolved conflicts and managed team operations, reflecting strong problem-solving and leadership skills applicable to agile development environments