## **Philip George**

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## **INTRODUCTION**

I'm Philip George, a full stack software engineer with just under **5 years** of industry experience — starting as hire #6 at **MetaDataWorks** and later helping SMEs like **Dunelm** scale their platforms.

At **MetaDataWorks**, I was the sole front-end developer on a medical-ontology browser for the NHS—running weekly demos with non-technical stakeholders to gather feedback and refine the UI until clinicians embraced it, which led to a £1.2 million, three-year contract. After a promotion, I led the front-end of our flagship **Metadata Browser**, delivering an accessibility overhaul to meet government standards and a full **JavaScript-to-TypeScript** migration to eliminate runtime errors and boost developer productivity.

## **PERFORMANCE HIGHLIGHTS**

- Greenfield Search Web-App for NHS: Led FE development on SaaS medical ontology browser, enhancing NHS's health
  data concept management and accessibility. Sold for £1.2M over a 3 year contract.
- Stakeholder Meeting Presentations: Demonstrated new features, contributing to the acquisition of a client contract.
- 10x Performance Optimisation: Tasked with streamlining an organisation wide access control management page, achieved a 1000% decrease in page load time, significantly boosting app performance.
- Usability and Accessibility Lectures: Raised company-wide awareness through presentations, enabling more inclusive
  and user-friendly product design.
- System Architecture and Design I designed and implemented a modernisation strategy by creating architecture diagrams, conducting team talks, and separating work into tickets, leading to the successful modernisation of the platform component, improving functionality and performance.
- JavaScript -> TypeScript Codebase Conversion: Led successful migration from JavaScript to TypeScript, enhancing code
  robustness and maintainability without compromising delivery targets.

#### **EDUCATION**

- BSc Mathematics and Computer Science University of Exeter
   September 2015 November 2019
  - Dissertation: Artificial Intelligence on the Generation of Music by Emotional Tone (2019 2020)
    - Al model development to analyze music composition and emotional evocation.
    - Technologies: GAN, CRNN, RNN, Python, TensorFlow (Keras), Spotify API
- MSc Data Science for Healthcare (Interrupted) University of Exeter September 2021 January 2022
  - o 68% across modules taken
  - Sponsored by Metadataworks Ltd.
  - Interrupted due to a misalignment between the course content and professional interests.

## PROFESSIONAL EXPERIENCE

### **Freelance Software Engineer and Founder**

March 2024 - Present

Forge Software Solutions Limited | London, England

- Provided technical script consultancy and served as the public face for the "Trend Talks" campaign for JetBrains through a collaboration with Coolr, aligning creative advertising with robust technical solutions.
- Advised multiple small contracts on the implementation of modern web solutions, ensuring rapid deployment and optimal system performance.
- Developed a modern online store for a boerwors Online Store using **React** and **TypeScript** to deliver a responsive, user-friendly experience.
- Leveraged **Bun** for enhanced runtime performance, ensuring efficient processing of client-side operations.
- Integrated **Stripe** for secure, seamless payment processing and deployed the application on **Vercel** to minimise server cost before scaling.
- Worked directly with clients to capture requirements, refine user experiences, and deliver agile-driven solutions that meet business goals.

# Software Engineer, July 2023 — November 2023 (5 months - all internal engineers, HoE + most of C-Suite London made redundant)

Disperse | London, England

- Tasked with developing the 'Mark Up and Share' feature for an application, I selected and customized an NPM library, augmented the functions of a 3rd-party screenshot library, and resolved user-reported bugs, particularly with 360° image errors, resulting in the successful delivery of the feature in time for a stakeholder demo, receiving high praise for its seamless operation and ease of use.
- Independently managed 4 production releases, playing a key role in 10 additional releases, enhancing the application's performance and user experience without introducing any issues to end users.
- Joining a new company with a complex suite of SaaS applications, I rapidly familiarized myself with the technologies and frameworks involved, actively contributing to the development process, successfully adapting within the first three months and contributing effectively to development and deployment processes.
- Despite the contract non-renewal due to funding issues and market conditions, I owned and delivered key features, contributed to multiple production releases, and rapidly adapted to a new and complex codebase, leaving a strong impression as evidenced by positive reviews from colleagues.

## **Full Stack Software Engineer**

June 2022 — July 2023 (1 year 2 months)

Dunelm | London, England

- Faced with the challenge of modernising a core part of the team's platform and integrating with other teams parallel modernisation, I designed and implemented a modernisation strategy by creating architecture diagrams, conducting team talks, and separating work into tickets (working with the team's Business Analyst), leading to the successful modernisation of the platform component, improving functionality and performance.
- Tasked with enhancing overall system efficiency inside of this modernisation, I developed a design that implemented server-side caching for the GraphQL backend, allowing data to be requested in one comprehensive call rather than multiple requests, which significantly increased system efficiency and streamlined data retrieval processes.
- Participating in industry conferences to stay abreast of new developments, I gathered and shared knowledge about the
  latest techniques and technologies in the React/TypeScript ecosystem with my team, enhancing team knowledge and
  accelerating progress for an innovative working environment.
- Recognizing the need for peer support in refactoring and developing new features, I engaged in pair programming, sharing best practices, especially emphasizing Test-Driven Development (TDD), contributing to the development of robust features and improving team efficiency and code quality.

#### **Junior Software Engineer -> Software Engineer**

Nov 2019 — Feb 2022 (2 years 4 months)

Promoted July 2021

- Given the task of developing a greenfield search web-app for the NHS to find and create health data concepts, I led the development by coordinating a team and implementing advanced search functionalities, integrating multiple reference datasets, which resulted in the successful launch of the app, significantly enhancing the NHS's ability to access and manage health data concepts.
- Faced with the need to showcase development progress in stakeholder meetings, I presented new features and sprint progress, prepared and delivered presentations highlighting key advancements, leading to the successful acquisition of a client contract due to effective demonstrations.
- Identifying performance issues in a web-app, notably long page load times, I worked to reduce these times by implementing smarter caching and writing pagination end-to-end from Spring Boot to React, achieving a 1000% decrease in page load time and significantly improving the app's performance.
- Tasked with front-end development of a dataset browser, I led the development team in building an efficient and user-friendly browser using React and TypeScript, resulting in a robust and intuitive dataset browser, enhancing data accessibility for users.
- Recognizing the need for increased awareness of usability and accessibility within the company, I developed and delivered multiple lectures and presentations across the company, raising awareness and knowledge of usability and accessibility, enabling a more inclusive and user-friendly product design approach.
- Tasked with minimising runtime errors in the front-end codebase, I led the conversion of the existing front-end codebase in JavaScript to TypeScript, ensuring a smooth transition and minimal disruption, which resulted in a more robust, maintainable, and scalable codebase.

## **PERSONAL PROJECTS**

#### Decentralised Video Chat (2020-2021)

- Custom video chat application developed during COVID-19 lockdowns.
- Integrated features like picture-in-picture and screen-sharing.
- Technologies: React, TypeScript, Firebase, WebRTC.

#### **Countdown Numbers Game (2022)**

- Click or Tap here
- Terminal-based game inspired by the TV show "Countdown".
- Developed a Python script capable of finding all possible solutions.
- (In Progress) Rewriting the interface in React and running the computationally heavy code as Rust compiled into WebAssembly.
- Technologies: Python, Rust, React, Vercel Edge Functions, Astro

## **AREAS OF EXPERTISE**

Software Engineering | Full Stack Development | Project Leadership | Agile Methodologies | Problem Solving | Cross-Functional Collaboration | Test-Driven Development (TDD) | Continuous Integration & Continuous Delivery (CI/CD) | Technical Writing | Cloud Computing | User Interface Design | Database Management

Languages: TypeScript | Python | SQL | Java | Shell/Bash | JavaScript

**Web Development**: React | Node.js | GraphQL | Django | NGINX | GitHub Actions | Jest | Cypress | Storybook | Spring Framework | Grails | Kibana | Maven | Gradle

Machine Learning: TensorFlow (Keras), NumPy, MatPlotLib, SciPy

DevOps + Cloud: AWS | Docker | Terraform | Serverless

Databases mySQL | MongoDB | SQLite | Postgres | ElasticSearch

 $\textbf{Technologies}: \verb|ECS| | \verb|S3| | \verb|EC2| | Cloudfront | \verb|ELB| | Serverless | Edge Functions | SNS | SQS | Cloudfront |$