Philip George

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SOFTWARE ENGINEER

Dynamic and innovative Software Engineer with extensive experience in full-stack development, project leadership, and agile methodologies. Proven track record in delivering high-quality software solutions, enhancing system performance, and implementing modern technologies in various domains.

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, fostering inclusive and user-friendly product design.
- **TypeScript Codebase Conversion:** Led successful migration, enhancing code robustness and maintainability without compromising delivery targets.

EDUCATION

- **BSc Mathematics and Computer Science**   September 2015 — November 2019
  - Dissertation - Emotion Driven Music Composition with Artificial Intelligence

- **MSc Data Science for Healthcare (Interrupted)**   September 2021 — January 2022
  - 68% across modules taken
  - Sponsored by **Metadataworks Ltd.**
  - Interrupted due to lack of challenge and relevance - Introduction to Python course was still on the syllabus 3 months in, along with med school modules.

PROFESSIONAL EXPERIENCE

London Software Engineer   July 2023 — November 2023
Disperse | London, England

- Tasked with developing the 'Mark Up and Share' feature for an application, I selected and customized a 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 Developer   July 2022 — July 2023
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 fostering 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.

Full Stack Developer   Jan 2022 — July 2022
Buyapowa | London, England

- Working at Buyapowa, a company collaborating with significant brands (like 3, F1, Ralph Lauren, etc.), I focused on building greenfield React screens for end-users to manage referrals, integrating with the company's existing systems, successfully deploying the code globally and enhancing the referral system's interface and functionality. However, I decided to leave as the role didn't align with my career aspirations.

Graduate Software Engineer / Software Engineer   Nov 2019 — Feb 2022
MetadataWorks | London, England

- 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, fostering 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.

Artificial Intelligence on the Generation of Music by Emotional Tone (2019 - 2020)

- AI model development to analyze music composition and emotional evocation.
- Technologies: GAN, CRNN, RNN, Python, TensorFlow (Keras), Spotify API

Countdown Numbers Game (2022)

- Terminal-based game inspired by the TV show "Countdown".
- Developed a Python script capable of finding 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

Technologies: ECS | S3 | EC2 | Cloudfront | ELB | Serverless | Edge Functions | SNS | SQS