William Parkhouse

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Education

University of Birmingham	**Sep 2022 - Jun 2026 (Expected)**
AI and Computer Science BSc w/ Industrial Year - Grade: 88% (99th Percentile)	*Birmingham, UK*
University of Amsterdam	**Jul 2023 - Aug 2023**
Urban Changemakers Summer School	*Amsterdam, NL*
Self-Tuition	**Jan 2022 - May 2022**
Mathematics (A*) and Further Mathematics (A) A-Levels	*Bristol, UK*

Experience

Meta **Jun 2025 - Sep 2025**
Software Engineer Intern *London, UK*
- Delivered end-to-end integrity workflow for Facebook Dating ahead of schedule, aligning with XFN partners across platforms, earned *"exceeds expectations"* feedback.
- Led migration to a new, untested enforcement framework, maintained timeline, and set direction for team-wide adoption.
- Developed and deployed a new integrity enforcement mechanism, resulting in a $\sim$35% uplift in violative accounts disabled.
- Enhanced platform infrastructure by resolving critical production bugs, creating reusable components, and improving testing frameworks and internal tools beyond immediate project scope.
- Shipped 52 PRs (9k LOC, 83 unit tests) at 3.7x team average velocity, with 93.7% test coverage (96th percentile across Meta).

Hewlett Packard Enterprise **Jul 2024 - Apr 2025**
Software Engineer Intern *Bristol, UK*
- Developed and maintained backend microservices for cloud storage, APIs for high-throughput, petascale data ingestion, and novel testing practices adopted organization-wide, with a focus on clean, efficient and rigorously tested code.
- Designed and implemented a microservice anomaly detection system based on a novel statistical system, with a focus on mathematically proven accuracy, and an innovative CO_2 tracking system for microservice emissions.
- Technologies: Go, Docker, Kubernetes, Helm, gRPC, Kafka, Prometheus, Grafana.

University of Birmingham **Sep 2023 - Apr 2024, Sep 2025 - Present**
Teaching Assistant *Birmingham, UK*
- Facilitated group tutorials (40-80 students), smaller sessions (5-15 students), and one-to-one tutoring for maths and logic, and full-stack development modules, teaching propositional logic, predicate logic, linear algebra, abstract algebra, set theory, concurrent programming, SQL, and networking.

Freelance **Sep 2019 - Jun 2022**
Audio Engineer / Videographer / Colourist *Bristol, UK*
- Provided audio engineering, videography and colouring for clients in music, advertising, and political messaging, delivering high-quality results under tight deadlines for content with millions of impressions.

Technical Skills

Languages: PHP, Go, Java, Python, C, SQL
Tools: Docker, Kubernetes, Prometheus, Grafana, Haystack, Git, PyTorch, Caddy
Technologies/Frameworks: PostgreSQL, Helm, gRPC, Kafka, NATS, Spring Boot, React, Next.js
AI Skills: Vector Search, RAG agents, NLP (NER, classification), ETL pipelines, High-Performance Caching (Valkey), LLMs

Projects

recapa.app - Founder **Mar 2025 – Present**
- Developed a crowd-sourced video aggregation platform for live music, delivering multi-angle, pro-audio concert recaps for fans, and licensable UGC for artists and venues. Selected for UoB Elevate startup accelerator supporting high-growth ventures.
- Built scalable Go/Supabase backend, iOS/Android apps, and CDN-backed pipelines for upload, sync, and playback.

raiss.ai - Co-founder, Lead Developer **Sep 2024 – Feb 2025**
- Led the development of a shopping search platform, using a scalable AI agent, combining ETL pipelines, auto generated product taxonomies, NER NLP pipelines, and high-performance caching to optimize queries and product discovery.
- Technologies & Tools: Python, Go, React, Haystack, LLMs, Kubernetes, Docker, PostgreSQL, Valkey.

lowertones - Lead Developer and Agile Lead **Jan 2024 - Jun 2024**
- Led a team of 7 developing a music organisation and metadata insight web-app.
- Developed on Spring Boot backend, with Postgres DB, and an Angular frontend, with DevOps and CI/CD managed in-house.
- Created custom Musicbrainz ID to Spotify ID mappings via custom search algorithms, and published dataset.

Leadership / Extracurricular

Head of Technology - BurnFM Radio Station **Sep 2022 – Jun 2024**
- Maintained all technical aspects for the station, leveraging previous experience as an audio engineer.
- Led the upgrade of broadcasting software and servers, reducing costs and boosting presenter retention.
- Modernized outdated WordPress website, enhancing security and slashed loading time by 84% using React and Next.js
- Trained team of 25 committee members on all technical aspect required to run and supervise shows.

Other Activities

- *The Birmingham Award* awardee for developing professional skills by undertaking a variety of developmental activities.
- Treasurer for PhotoSoc (Photography Society) 23/24.