BENJAMIN DRUCE

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Programming and Development

Node.js | Next.js | React | JavaScript | HTML | CSS | Python | Flutter | Java | SQL
Amazon Web Services (AWS) | GCP | Git | Bitbucket

EDUCATION

Loughborough University   Oct 2021 - Sept 2025
- UK Computer Science BSc

Reepham Sixth Form College   Sept 2019 - Jun 2021
- Physics (A), Maths (A), Computer Science (B)

WORK EXPERIENCE

Full-Stack Engineer Placement at electronRx   July 2023 – Present
- Web Application Development: Spearheaded the design and development of several diagnostic, analytical and visualisation web applications, ensuring seamless user experience and functionality.
- Machine Learning Integration: Successfully integrated Python-based ML models into cloud services, converting them into microservices for improved scalability and functionality.
- Cloud Deployment: Utilised AWS for deploying web apps and microservices, ensuring optimised performance and security.

PROJECTS

ML Integrated Web Applications electronRx, Oxcitas
- Developed a suite of full-stack web applications leveraging Machine Learning models, each with a specialized dashboard and cloud-based microservice architecture. Key applications include:
    - Dementia and brain age diagnostic tool using MRI analysis.
    - Ten-year mortality risk calculator for insurance, presented to and recognized by Swiss Re.
    - Biological age estimator based on blood biomarkers.
- Managed the transition of Python ML models into microservices, streamlining scalability.
- Collaborated with a team of machine learning specialists from Oxcitas to enhance model performance and integration.
- Node.js | React | Next.js | Python | Tailwind CSS | SQL | AWS

RxCloud Data Visualisation Platform electronRx
- Engineered a robust data visualization web application to interface with a Software as a Medical Device mobile application, facilitating real-time result streams.
- Orchestrated the development of a comprehensive cloud-based data processing pipeline, originally conceptualized by electronRx's data science team, to ensure seamless data flow from patient recordings to processed outputs.
- Designed and implemented a bespoke visualization platform to provide insightful analytics, enhancing the value chain from data acquisition to decision-making.
- Node.js | React | Next.js | Python | Tailwind CSS | SQL | AWS | GCP (Firebase)

Key Strengths

Collaboration | rapid learning and adaptability | proactive nature | logical thinking/problem solving