

# Herbie Bingham

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Life science focused full-stack developer with 2+ years of pharmaceutical industry experience, specializing in enterprise web applications and system control. Proven track record of advancement including building scalable systems at Pfizer.

## CORE SKILLS

- **Programming & Development:** Python (Flask, FASTAPI), TypeScript, React, Next.js, Node.js, Rust, TailwindCSS, HTML/CSS, Tanstack, Cypress, MATLAB, Bash, Unity, Dataiku, CAD, FPGA, Siemens NX
- **Cloud & DevOps:** Amazon Web Services (AWS), Linux, Docker, GitHub Actions, Git, CI/CD, E2E testing
- **Database & APIs:** SQL, PostgreSQL, MongoDB, SQLite, REST APIs, TCP, OPCUA, MQTT
- **Data Analytics & ML:** Pandas, NumPy, Scikit-learn, Supervised/Unsupervised Learning, Clustering
- **Domain Knowledge:** Bioengineering concepts, laboratory workflows, Labware LIMS, GxP

## EXPERIENCE

### Pfizer • Web Developer Contractor

*October 2024 – Present*

- Promoted to lead web developer for the optimization of the pharmaceutical resource management system
- Collaborated with 40+ scientists across global pharmaceutical operations
- Supports 500+ process jobs with concurrent, real-time editing capabilities and regulatory compliant audit trail
- Architected microservice application using Next.js, TypeScript and PostgreSQL with custom data pipeline enterprise solution, containerized with Docker, deployed on AWS infrastructure and versioned with Git
- Implemented frontend testing strategy using Cypress for end-to-end testing
- Delivered reports to team leaders with feedback loops and facilitated knowledge transfer to junior developers

### Pfizer • Data Analyst Placement

*September 2023 – August 2024*

- Drove full software development lifecycle from URS gathering to deployment for multiple concurrent projects
- Optimized compute time of NIR spectral inline analysis risk assessment by over 10-fold
- Developed a Python and React controller for a feed frame simulator and sensor control, increasing compliance
- Utilized RESTful API architecture with Flask alongside OPCUA system control and WebSocket connections
- Implemented detailed telemetry and logging systems to maintain regulatory compliance and troubleshooting
- Successfully utilized MQTT with RabbitMQ to control e-ink display labels with power efficiency
- Presented designed software solutions to global stakeholders to increase application visibility and adoption

### PredictX • Data Analysis Work Experience

*July 2021 – September 2021*

- Developed Python data analysis with Pandas, NumPy and Scikit-learn to identify patterns in financial datasets
- Applied advanced data visualization techniques and analytical algorithms enhancing data communication
- Utilized knowledge of banking loan scenarios to identify reliable sources via cluster analysis

### Random42 • Programming in Unity

*July 2019*

- Developed Unity-based programming skills through hands-on mini-project development
- Learned company workflow principles including version control management in Git
- Gained understanding of cross-functional communication between technical and medical data teams

## EDUCATION

### Loughborough University

*2021 – 2025*

- First-Class Bachelor of Engineering – Bioengineering with Diploma in Industry – 81%

### Westminster School

*2016 – 2021*

- 5 x A\* in Maths, Biology, Chemistry, Physics A-level and Extended Project Qualification

## AWARDS

### PA Consulting • 1<sup>st</sup> Place Raspberry Pi Competition

*2021*

- Spearheaded a team to create security gadget with Raspberry Pi, winning senior category of the competition
- Implemented machine learning techniques in Python for data trend analysis