

Tim Richardson

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TECHNICAL SKILLS

Languages & Tools: node.js, django, elasticsearch, postgresql, docker, bioinformatics, reactjs, javascript, d3.js, python, scipy, numpy, git, amazon-web-services, kubernetes, graphql, google-cloud-platform, samtools, continuous-integration, continuous-deployment, tdd, microservices, unit-testing, web-services.

(*Dislikes: php, perl*)

EXPERIENCE

Genomics England London, UK
Software Engineer Dec 2021 – Present

- **Engineering Leadership:** Line Manager for 6 direct reports, responsible for mentorship, performance management, and delivery oversight.
- **Workflow Modernisation:** Key role in migrating complex workflow orchestration systems to Nextflow, improving scalability and reproducibility.
- **AI Transformation:** Leading internal initiative to introduce and operationalize AI coding assistants across engineering, driving efficiency.
- **Backend Development:** Architecting and maintaining robust backend services using Python and AWS for high-throughput genomic data processing.

IQVIA London, UK
Senior Software Engineer Mar 2019 – Dec 2021
Stack: go, typescript, reactjs, redux, elasticsearch, postgresql, d3.js
• Coordinating releases, product development, process improvement, code review.

Project Shivom London, UK
Lead Developer Oct 2018 – Mar 2019
Stack: blockchain, smartcontracts, google-genomics, google-cloud-build, postgresql, graphql, react-apollo
• Design, development, and deployment of a genomic data sharing solution with blockchain components.
• Managed development team, created wireframes, developed backend services (REST APIs) and React SPA frontend.
• Deployed using Docker and App Engine.

Polecat London, UK
Python Contractor Jul 2018 – Oct 2018
Stack: django, django-rest-framework, graphene-python, reactjs, elasticsearch, postgresql, plotly
• Built a Python reporting service to generate PowerPoint marketing reports.
• Engaged with technical teams and product managers to produce software specifications and wireframes.
• Solution built using Python, Django, GraphQL, React, Elasticsearch, and Plotly.js.

Congenica Hinckley, UK
Senior Frontend Developer (React) Mar 2016 – Jul 2018
Stack: perl, reactjs, react-router, redux, reactive-programming, bioperl
• Developed new and optimised existing features for clinical genomics tool using Perl APIs and React frontend.
• Focused on optimal data flow for data-intensive UI.
• Led development of an API to integrate Congenica's Sapientia platform with Genomics England's 100k genomes project.

Repositive Ltd London, UK

<i>Lead Developer</i>	Nov 2014 – Mar 2016
<i>Stack: docker, node.js, ansible, ember.js, git, agile, postgresql, elasticsearch</i>	
<ul style="list-style-type: none"> Led development of a genomic data discovery platform, including infrastructure and development processes. Developed web app architecture based on Node.js Express API using Redis, Postgres, and Elasticsearch. Built UI as an Ember.js single-page application. 	
Wolfson Institute for Biomedical Research	London, UK
<i>Freelance Bioinformatics Project</i>	Oct 2014 – Nov 2014
<ul style="list-style-type: none"> Analyzed ChIP-SEQ project: trimming and QC, peak calling, motif discovery, GO annotation. 	
Fire Tech Camp	London, UK
<i>Instructor</i>	Jun 2014 – Aug 2014
<ul style="list-style-type: none"> Taught Python programming to children aged 11-15. 	
Ixxxy	Brighton/Remote
<i>Django Developer</i>	Mar 2013 – May 2014
<ul style="list-style-type: none"> Built and maintained sites based on Django/Python CMS system. 	
Ecomarket.com	London, UK
<i>Django Developer</i>	Jan 2013 – Mar 2013
<ul style="list-style-type: none"> Backend developer for an online marketplace using Django, Python, and PostgreSQL. 	
Swerve Concepts	London, UK
<i>Junior Software Developer</i>	Feb 2011 – Jan 2013
<ul style="list-style-type: none"> Full stack developer using Python and PHP frameworks. Developed cloud-based products Swerve Media Hub and SignUpAnywhere. 	

EDUCATION

Birkbeck, University of London	London, UK
<i>MSc Bioinformatics & Systems Biology (Merit)</i>	Sep 2012 – Sep 2014
<ul style="list-style-type: none"> Studied statistics, protein structure, sequence alignment, systems biology, and software development. Thesis: Tracing human migration using MCMC methods for population clustering with dense genotype data. 	
Leeds University	Leeds, UK
<i>BSc Cognitive Science (Hons)</i>	Sep 2005 – Sep 2008
<ul style="list-style-type: none"> Interdisciplinary course covering computing, psychology, and philosophy. Dissertation: Data mining techniques for dynamic data sets. 	

PROJECTS & INTERESTS

hansard (github.com/timini/hansard)	
Analysis of the hansard archive materials. Uses Jupyter, Django REST, Ember.js, Docker, Kubernetes.	
chromo9 (github.com/timini/chromo9)	
Biocomputing II project using Perl.	
keyzen (github.com/timini/keyzen)	
A touch typing trainer geared towards programmers.	