

# Tim Richardson

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## TECHNICAL SKILLS

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**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

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**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** Hinxton, 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

*Lead Developer* Nov 2014 – Mar 2016  
*Stack: docker, node.js, ansible, ember.js, git, agile, postgresql, elasticsearch*

- 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  
*Freelance Bioinformatics Project* Oct 2014 – Nov 2014

- Analyzed ChIP-SEQ project: trimming and QC, peak calling, motif discovery, GO annotation.

**Fire Tech Camp** London, UK  
*Instructor* Jun 2014 – Aug 2014

- Taught Python programming to children aged 11-15.

**Ixxy** Brighton/Remote  
*Django Developer* Mar 2013 – May 2014

- Built and maintained sites based on Django/Python CMS system.

**Ecomarket.com** London, UK  
*Django Developer* Jan 2013 – Mar 2013

- Backend developer for an online marketplace using Django, Python, and PostgreSQL.

**Swerve Concepts** London, UK  
*Junior Software Developer* Feb 2011 – Jan 2013

- Full stack developer using Python and PHP frameworks. Developed cloud-based products Swerve Media Hub and SignUpAnywhere.

## EDUCATION

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**Birkbeck, University of London** London, UK  
*MSc Bioinformatics & Systems Biology (Merit)* Sep 2012 – Sep 2014

- 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  
*BSc Cognitive Science (Hons)* Sep 2005 – Sep 2008

- Interdisciplinary course covering computing, psychology, and philosophy.
- Dissertation: Data mining techniques for dynamic data sets.

## PROJECTS & INTERESTS

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**hansard** ([github.com/timini/hansard](https://github.com/timini/hansard))  
Analysis of the hansard archive materials. Uses Jupyter, Django REST, Ember.js, Docker, Kubernetes.

**chromo9** ([github.com/timini/chromo9](https://github.com/timini/chromo9))  
Biocomputing II project using Perl.

**keyzen** ([github.com/timini/keyzen](https://github.com/timini/keyzen))  
A touch typing trainer geared towards programmers.