# Robert Wright

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## Work Experience

**Inflowmatix (now Suez)** Southampton & Remote
*Head of Data Science* *2018 - Present*

- Leading the development of a new analytical platform using the Julia and Elixir programming language, hosted on Google Cloud using Kubernetes
- Developing algorithms including recursive models and inverse methods fed by live water utility data for the constructions and maintenance of large scale water network models
- Product ownership activities including application of "The Mom Test" in order to test software solutions with customers before full development cycles begin
- Documentation of algorithms and supported operations via the platform's APIs using OpenAPI
- Leadership activities such as recruitment, supporting the team, and acting as a technical witness during company's acquisition

*Data Scientist* *2015 - 2018*

- Developed test-driven online data science algorithms in a production environment via AWS Lambda
- Contributed to design of algorithms including step detection methods for identifying events in time series data, solving optimal sensor placement problems, multilateration of water hammer pressure waves for localisation of sources
- Offline algorithm work analysing 5TB of measurement data, utilising AWS Lambdas in parallel to achieve acceptable compute times
- Founding member of the company, which was spun out of Imperial College London

**Imperial College London** London
*Graduate Teaching Assistant* *2011 - 2015*

- Marking, teaching, theses co-supervision. I also built and taught a preparatory MSc mathematics course.

## Education

**Imperial College London** London, UK
*PhD Computational Hydraulics* *2011 - 2015*

- Convex numerical optimisation methods applied to large scale water supply networks
- Co-author for 3 journal papers and 5 conference papers
- Supervised by Dr Ivan Stoianov (Dept. of Civil Engineering) and Dr Panos Parpas (Dept. of Computing).

**Imperial College London** London, UK
*MEng Civil Engineering, 2.1* *2007 - 2011*

- Modules include Computational Engineering Analysis, Engineering Mathematics, Structural Mechanics & Dynamics, Applied Hydrodynamics, Environmental Fluid Mechanics, Statistics, Earthquake Engineering
- Dissertation: Development of a decision support system for estimating infrastructure failure using logistic regression

## Volunteering

**The El Salvador Project** El Salvador
*Team Leader* *2012 - 2013*

- I interviewed, recruited and led a team of 9 students on a charitable engineering and development project in El Salvador, where we retrofitted 20 houses to improve their resistance to earthquakes.
- I liaised with partner organizations including Arup, the British Embassy, and a local NGO in El Salvador.
- I managed the construction sites and was responsible for safety and the team's well-being.

## Awards

- Winner of Best Student Paper Award at the Computing and Control for the Water Industry Conference 2015, De Montfort University, Leicester, UK
- Winner of RBS ESSA Best Use of Funds Award, The El Salvador Project
- EPSRC CASE Award – Fully Funded PhD
- ABRSM Grade 8 Piano

## Skills

- Julia, Python, Bash (UNIX), IPOPT, TimescaleDB, PostgreSQL, C, Kubernetes, Google Cloud, AWS Lambda, CI/CD (CircleCI), Serverless (Python)