Stuart Gordon

Email: stuartgordon92@gmail.com

A curious railway systems engineer currently researching modelling strategies for rail network predictability, human performance and chaotic behaviour appraisal as part of Newcastle University's Geospatial Systems CDT.

EDUCATION

2022 – 2023

Newcastle University, UK

- **Masters of Research:** Geospatial Data Science (in progress)

2010 – 2015

University of Bath, UK

- **Master Of Engineering:** Integrated Mechanical & Electrical Engineering, Second-class honours first division (2:1)

WORK EXPERIENCE

January 2023 – Present

Senior Development Engineer - Control Systems, Siemens Mobility (Contract Part Time)

- Developed the solution, architecture and design proposal for a cloud based railway Operational Technology platform in the UK in collaboration with Amazon Web Services.
- Development of assurance documentation and initial assessments of proposal for the first stages of implementation of the intended solution.

November 2020 – September 2022

Senior Project Engineer, Traffic Management - Control Systems, Siemens Mobility

- Senior Project Engineer responsible for delivering Traffic Management projects for Control Systems department in UK
- Defined the engineering solution for Siemens Mobility's Interfaced Traffic Management System for the UK Railway including provision & methodology for interfaces with ETCS systems
- Performed the role of Technical Lead on Traffic Management bids for several different solutions & deployments
- Provided technical lead and production of Benefit Quantification & Option Selection activities as part of Professional Service Contracts on Traffic Management projects
- Day-to-Day Line management of Lead Project Engineers and other direct reports including graduates & apprentices

May 2020 – November 2020

Lead Project Engineer, Traffic Management - Control Systems, Siemens Mobility

- Project Engineer responsible for delivering Traffic Management projects for Control Systems department in the UK
- Managed delivery of a timetable performance modelling prototype solution for TRU Programme
- Produced deliverables as part of Professional Services Contracts to support specification and scope of future Traffic Management Solutions
- Established a research project with University of Birmingham into the use of AI & Machine Learning algorithms for application in automated route setting solutions and their potential for use in Traffic Management Solutions

November 2019 – May 2020

Lead Project Engineer, Control Systems, Siemens Mobility

- Project Engineer responsible for delivering engineering projects for Control Systems department
- Managed deliverables and producing project engineering outputs for multiple concurrent projects
- Projects include large resignalling programmes and small renewal & replacement projects
- Lead 10 engineering resources to deliver project working with Project and Engineering Managers to meet commissioning deadlines

November 2016 – November 2019
Project Engineer, TMS, Hitachi Information Control Systems Europe
● Project Engineer working on Traffic Management Systems principally on Network Rail's Thameslink Project
● Performed technical demonstrations for stakeholder engagement with various internal and external stakeholders
● Lead implementation of systems and sub-systems for the TM system. This included internal interfaces and external interfaces working with internal project teams, client representatives and other external suppliers
● Optimised the outputs of system data into business insights proving the value of the system to the customer to adapting the technology into business processes and utilise the benefits of the system
● Drove technical improvements in the system striving for continuous improvement and optimisation of the Traffic Management System for the wider railway system
● Produced Operating Requirements Specifications to document baseline system requirements
April 2016 – November 2016
Graduate Engineer, WSP | Parsons Brinckerhoff
● Graduate Engineer working in Systems Development within Rail Management Services
● Data Configuration Manager – Thameslink Programme: High-Capacity Infrastructure
● Successfully managed data configuration for Thameslink Traffic Management project for Network Rail (NR).
● Produced reporting dashboards to highlight key issues and progress communicating complex data in a simple way for project managers and wider audiences
June 2012 – Sept 2013
TRESA Data Engineer, TRE Rail, Bradford on Avon, UK
● Part of undergraduate degree industrial placement, working in the engineering industry for a year.
● Produced Automatic Route Setting signalling systems for live railway.

CERTIFICATIONS
Amazon Web Services
● **Cloud Practitioner:** Issued: December 2022, Expires: December 2025, Credential ID: E9EPWRJKS1F114C6

COMPUTER SKILLS
● Word Processing – Advanced – frequent use of word processing, spreadsheets and database work.
● Data Processing/Analysis – Advanced – Cutting-edge use of programs from excel to databases to produce meaningful information and graphics from large raw data sets. Additional experience in distributed cluster-based computation for large scale calculations & analytics utilising data to inform decision making processes and insights
● Computer Systems – Advanced – proficient in most Operating Systems, including CLI and GUI interfaces
● Enterprise Service Bus Technology – Advanced – experience in architectures and their integration into other systems including resilience architectures in most major products (JMS and IBM MQ)
● Networking – Intermediate – clear understanding of engineering network architectures for optimisation and security. Experience with complex L2 architectures.
● Cloud Computing – Advanced – broad knowledge of the available cloud solutions and opportunities with the ability to design and integrate current architectures into a cloud-based solution.

INTERESTS
In my spare time I am involved with rowing biomechanics as an expert helping teams improve performance. I have several side projects including developing deep learning/machine learning models and systems both for railways and other fields. I am a keen triathlete and regularly train for long distance Ironman races.