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Portfolio at *ottelli.github.io*

Elliott Cheesman

Summary

If you're looking for a self-starter who is comfortable solving problems without supervision, then I will be a great fit for your business. My nature is to think systematically and focus on highest quality solutions. On the other hand, I have spent the past 5 years in roles requiring improvisation and delivery under time pressure. This gives me the confidence that I can get up to speed quickly and provide value to teams and projects.

Roles

Full-Stack Developer *July 2021 - present*

Established *Rho Technologies Ltd* to publish my projects

I thoroughly enjoyed learning to program at university, first with MATLAB, then with Python. I love the experience of having an idea, building it with code, and seeing it come to life. From my education in sports engineering, the problems that I've worked on up to now surround measuring real-world performance, and using that data to provide useful feedback to amateurs and professionals alike.
To that end, for the past 18 months, alongside my responsibilities as a Carer, I have been learning web development by building a training calendar and insights app. Additionally, I use small projects to trial technologies that I find interesting, particularly drawing on my research with wearable sensors.

Tech Stack

- Linux and Windows machines.
- **Bash** commands and scripting.
- **Git** version control, plus CI/CD with GitHub Actions.
- **Object Oriented Programming** and scripting in Python.
- **REST APIs** and servers in Python and Go implementing the **OAuth2.0** standard.
- Relational and document database paradigms (**MySQL**, Firestore).
- **JavaScript**, prefer **TypeScript**.
- Range of web frameworks, build-tools and bundlers (Vite, NextJS, Webpack).
- UIs with **HTML+CSS** or **React**.
- Multiple styling paradigms; mainly **Sass**, also TailwindCSS and CSS-in-JS.
- Unit testing with **Jest** and the React Testing Library.
- I plan features and roadmaps for my projects with **XMind** mapping software.

Carer *Jan 2021 - present*

I left my last employment to provide live-in care for my Grandmother who was diagnosed with Alzheimer's Dementia in 2017. It's an any-and-all-times role that I have found incredibly rewarding. I have also been able to build my programming skills and indulge my passion for reading.

Site Controller *Jul 2019 - Dec 2020*

Big Bang Promotions

Responsible for managing a small team to deliver multi-day events.

- Organising and motivating team members to deliver a smooth operation.
- Being the escalation point for customer issues.
- Acting and reacting decisively under constant time pressure, delegating and taking advice where appropriate.
- End of day accounting.
- Providing first aid, and incident reporting.
- Liaising with venues, maintaining business-to-business relationships.
- Furloughed in Spring 2020, restarted in Summer 2020.

Events Instructor *Jun 2017 - Dec 2020*

Required to perform every task necessary to provide a high-quality, enjoyable event for customers and corporate clients.

- Started as seasonal, then worked year round.

- Providing comprehensive and engaging customer training, selling the experience, and creating a fun environment, adding value for the customer.
- Performing safety inspections on specialised machines (Segway PT / BPG Works DualTrack Shredder), including damage assessment, maintenance and repairs.
- Working actively to reduce risk whilst also being well prepared to give first aid.
- Packing equipment with organisation and due process.

Goal Line Technology Test Engineer *Sep 2018*

Labosport, Summer Internship

- Carried out FIFA standard procedures for testing Goal Line Technology.
- Set up test equipment including high speed cameras.
- Worked in a small team to ensure that game laws are being upheld in the implementation of technology into football.

Education

MSc Sports Engineering *Sep 2017 - Jun 2018*

Distinction *Sheffield Hallam University*

This course was designed to apply advanced engineering techniques to research and development of sports technologies and equipment.

I dedicated my thesis project to testing building upon the wearable sensor techniques from my undergraduate, adding temporal information algorithms like Sample Entropy and Fluctuation Analysis. Combined with gas exchange measurements I was able confirm my hypothesis and demonstrate that a J-shaped curve of efficiency exists in running gait, with faster athletes exhibiting a wider and deeper trough of greater energy efficiency across the velocity scale, predictable from wearable sensor data.

Key Themes

- Computation; Computer vision, advanced statistics, and modelling physical systems with differential equations.
- Innovation and Enterprise; listening to a problem, designing and testing a solution, then formulating a viable business plan around it.
- Simulation; Mechanical, vibrational, and aerodynamic simulation.
- Research and Testing; Wearable instrumentation, high-speed photography, 2D and 3D photogrammetry.
- Human-Centred Design; Physiology, qualitative methods, human factors and motor learning.

BEng Sports Technology *Sep 2014 - Jun 2017*

First Class Honours *Sheffield Hallam University*

This practical course first established a solid workshop-based engineering foundation before shifting towards modern engineering techniques suited to bespoke design and manufacture, with a continual focus on human-centred technology.

My dissertation was titled "How does shoe choice effect lower limb shock while running?" and involved recruiting and working with participants, measurement with wearable sensors (IMUs), signal processing and biomechanical impact modelling with factor analysis.

Key Skills

- CAD / CAM (Solidworks)
- Finite Element and Fluid Simulation (ANSYS)
- Design Skills; Working to specification, technical drawing, prototyping, manufacture and evaluation.
- Materials science and selection methodologies, specialising in composites, with destructive and non-destructive testing.

A Levels *July 2014*

The Arnewood Academy & Sixth Form

- Psychology, B
- Physical Education, B
- Product Design, C
- 11 A*-C **GCSEs** including Maths, English and Science A* (2012)