

Rubens Pirie

Electrical and Electronic Engineering Student

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Phone: Redacted

Email: contact@ru-pirie.com

I am a keen engineer who is intrigued by new technology and experiences. I have 3 years of experience interacting with clients and ensuring that ideas come to life. Whilst working at Exciting Escapes, I expanded my understanding of a professional workplace and best practices when working with members of the public; both from an interaction perspective, and for designing puzzles and user facing electronics. I am currently undertaking a masters degree in electrical and electronic engineering at the University of Southampton.

Experience

Sept 23 - Present



Theatre Technicians Society, The University of Southampton

StageSoc, The University of Southampton, Southampton

- Rigging at height including but not limited to, moving heads, static conventionals, projection and PA / sound equipment
- Working in a high risk environment from stage to sound to lighting
- Experience with EOS and ChamSys as well as various programming consoles
- Fire system isolation and strict adherence to university policy and familiarisation with fire safety protocols and accident reporting procedures
- Networking

Nov 22 - Present



Technical Games Master (Electronic Engineer)

Exciting Escapes, West Croydon, London (Remote with Travel)

- I work on custom firmware for AVR and Raspberry Pi silicon in a variety of languages including C, C++ and embedded Python derivatives
- Adhering to principles of reliable programming such as IEC 61508
- Ensuring that manufactured hardware is as RoHS and WEEE compliant
- I work closely with the owners of the company to design bespoke electronic solutions
- Kept to budget constraints and report regularly on progress throughout creation of new puzzles and designs
- Travel to the branches as required, acting as fire marshal and making risk assessments
- Practice good communication and team work ensuring that my solutions solve the problem, and are easily utilised by the gamesmasters

Jun 2021 - Nov 2022



Games Master

Exciting Escapes, Shirley, Southampton

- Welcomed customers projecting an air of confidence and energy
- Relayed and orientated appropriate health and safety information in case of an emergency
- Monitored the game throughout being attentive to customer needs, offering clues and hints when needed, while being conscious of customer safety
- Practiced high levels of cleanliness and hygiene throughout the complex

Education

Sept 2023-Present

Modules:

ELEC1200
ELEC1201
ELEC1202
ELEC1204
ELEC1205
ELEC1206
ELEC1207
MATH1055

Masters of Engineering

The University of Southampton, University Rd, Southampton, SO17 1BJ

MEng Electrical and Electronic Engineering

Substantial Topics Covered:

C, C++, FPGA, CPLD, General Gate Array Logic, Op-Amps, Transistors, Steady State and Transient Circuit Analysis, MATLAB, ModelSim, Quartus, LTSpice, semiconductor physics, CMOS, Maxwell Equations, Circuit Laws (Ampere, Faraday, KVL, KCL), circuit Resonance, AM / FM modulation and demodulation, complex logic (K-Maps).

Sept 2021-Jul 2023

Advanced Levels A*A*A

Barton Peveril Sixth Form College, Chestnut Avenue, Eastleigh, SO50 5ZA



Barton Peveril
Sixth Form College

- Maths - A*
- Computer Science - A*
- Physics - A
- Further Maths - C

Coursework: Distributed Map Road Detection w/ Optimised Pathfinding Algorithms, Canny Edge Detection, Flood Fill and UI Design (<https://github.com/Ru-Pirie/NEA>)

Sept 2016-May
2021



International General Certificate of Secondary Education (IGCSE)

The Gregg School, Cutbush Lane, Southampton, SO18 2GF

11 GCSEs, 9 at grade 8 or higher and 2 separately endorsed qualifications:

Including 3D Design, Biology Chemistry & Physics Highers, Computer Science, English Language, Literature & Speaking, Maths & Further Maths, Geography, History, and Spanish (FCSE)

Certificates / Licences

2022 - Industrial Cadets Gold

2024 - Full Drivers License

Skills

Electronics Development:

- PCB Design
- Worked on theatre production focusing on DMX lighting control and wiring
- Embedded Programming / Firmware Design
- IEEE and IEC Standards (IEC 61508)

Retail Industry:

- Money Handling
- GDPR / Data Controlling
- Customer Satisfaction

Programming:

- C#, C, C++ - Proficient
- Javascript - Advanced
- Python - Basic

Languages

- English - Native Speaker
- Spanish - Distinction