Rufus Eade

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Experience

2024 WMG - Summer Internship

- Practically tested the effect of noise factors on state of the art LiDAR sensors to evaluate the safety in autonomous vehicles, integrating them with ROS2 in Ubuntu 22.04.
- Developed documentation in Markdown and managed it using Git, contributing it into the teams GitHub repository by forking and creating pull requests.
- Extracted and processed data from LiDAR and 4D Radar in MATLAB, working with files provided by third parties and my own recordings, creating reproducible and efficient code that is easily readable.
- Collaborated with group members and industrial partners, creating and delivering presentations frequently, as well as taking part in other members discussions.
- Attended weekly meetings with my supervisors where I showcased my progress and received feedback.
- Working on-site every day, developed a good relationship and communicated frequently with the other intern.
- Became more familiar with the academic process, researched current papers on point cloud metrics and autonomous datasets.

2021 - 2023 Petersfield Shakespeare Festival - Lighting Operator

- Setup and managed the lighting for live performances with a 5 day deadline, demonstrating proficiency in time-sensitive environments.
- Operated the lighting desk for each performance, showcasing adaptability to real-time adjustments.
- Collaborated closely with the cast and stage director to optimize lighting configurations for improved shows.
- Developed skills in planning, teamwork, rigging lights, and operating lighting desks.

Education

2022 - 2025 University of Warwick - Cyber Security BSc

- Undertook programming modules covering Java, Rust, C# .NET, Haskell, Blazor, WebAssembly, Python, and PostgreSQL. Additional modules include: Analysing the human psychology with software interfaces. Continuous Integration and Deployment with Jenkins and finally a comprehensive study and implementation of cryptography, for example exploring key exchange and asymmetric encryption in RSA.
- Built a hash checker with Rust here.
- I thoroughly enjoyed learning about Linux and how it operates, as well as performing buffer overflows and analysing binaries using GDB, also covering penetration testing on Linux and Windows systems.
- Created a JavaScript application, and with infrastructure as code, used GitHub Actions and Pulumi to build a Docker container and deploy it into an AWS EC2 instance, the links show my work in the repository.

2020 - 2022 HSDC South Downs - Games Design & Development

UAL Level 3 Extended Diploma in Games Design and Development: **Distinction**

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- Solely created a game in Unreal Engine 4, in which the player lands on an alien planet. I created cinematic cutscenes for landing on the planet with Unreal Engine's animation sequencer. Environments, models and textures were made using World Machine, Substance Designer/Painter, Blender and ZBrush. Additionally composing sound effects and background music using BespokeSynth, a modular synthesiser.
- Collaborated on a 2D side-scrolling game in Godot, doing all the programming in GDScript, a language with similar syntax to Python, and contributing to pixel art using Aseprite.
- 3D Modelling/Texturing portfolio made during college: https://www.artstation.com/rufus_eade

Further information on the next page.

2015 - 2020 The Petersfield School

- **10 GCSE's**

Skills

Areas of Software I'm Familiar With:

- **CI/CD:** GitHub Actions, Amazon Web Services, Oracle Cloud, Pulumi, CloudFormation, Docker, Podman.
- **Hardware Development:** Arduino IDE, KiCad, Saturn PCB Design Toolkit.
- **Operating Systems:** Linux (Debian/Ubuntu, RHEL: Fedora, Amazon Machine Images and Oracle Linux. TrueNAS Scale), BSD (TrueNAS Core), Windows.
- **3D:** Unreal Engine 4, Godot, Blender, ZBrush, World Machine, Substance Painter, RealityCapture.
- **Miscellaneous:** Caddy, GDB, Git, GitHub, MATLAB.

Programming Languages:

- Bash, Rust, Java, Javascript, C# .NET, Haskell, Blazor, Python, PostgreSQL.

Miscellaneous Technical Knowledge:

- Used an existing headphone amplifier schematic to design a printed circuit board in KiCad, sourcing all the parts from DigiKey and Mouser, and soldering it all to create a vacuum tube headphone amplifier available from modern parts.
- Created a NAS from an old PC, flashing an HBA to be able to use SAS HDD's with TrueNAS Core and Scale.
- Hosts services, both on my NAS and an Oracle Cloud server, using Caddy reverse proxies and SRV Records with a custom domain through Cloudflare.
- Very confident around computer hardware and with diagnosing faults in both software and hardware.
- Built my website through GitHub Actions for Continuous Deployment, integrating it with a Cloudflare domain.
- Designed a printed circuit board in KiCad to adapt the bluetooth module in the Nintendo Wii to work over a USB cable on a PC.
- Thoroughly enjoy repairing electronics, frequently using a hot air station, multimeter, bench power supply and soldering iron.
- Designed multiple CAD models with OpenSCAD to then be 3D printed.

Combined Cadet Force (3 years):

- Gained valuable teamwork and leadership experience during various trips, making me effective in collaborative and under pressure environments.

Rock Climbing Club Assistant Instructor (1 year):

- Volunteered an assistant instructor at a local rock climbing club that I had been at for 5 years, learning valuable leadership skills.

Full UK Driving License

Duke of Edinburgh Bronze Award