Liam Cracknell

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Education

University of Surrey Graduation: 2027
BSc (Hons) Computer Science | Final Year *Guildford*

- **UKESF Scholar** (UK Electronics Skills Foundation), sponsored by ZF Group
- Predicted: 1st
- Relevant Modules: Computational Intelligence, Robotics

> *[WIP, Final Year Project]* **Manipulation Between LLM Agents in Monopoly**
> - Designing a Monopoly negotiation benchmark to measure LLM manipulation, persuasion vulnerability, and defences.
> - Rollout scoring for trade harm with automated claim checking against true game state.

Barton Peveril Sixth Form College 2021 – 2023
A Levels *Eastleigh*

- Computer Science, Mathematics, Further Mathematics, Psychology

Experience

ZF Group Sept 2025 – 2026 (12 months)
Student Engineer, Cyber Security Team | Industrial Placement Year *Birmingham*

Worked on internal tooling and risk report generation alongside year-long student project.

- Developed 'PyDownloader', a tool for flashing bootloaders to steering and braking ECUs over CAN using UDS (ISO 14229), through to first release on the test rigs on site.
- Added UDS support for Vector and PCAN adapters, and JSON config handling with schema validation.
- Wrote BDD tests (Gherkin, pytest), and reviewed pull requests from others.
- Extended a tool automating ISO 21434 Residual Risk Reports to score risk directly from TARA models.
- Guided site tours for a Department for Business and Trade trade mission of 18 UK companies.

> **High Throughput DataLogger** | Project Management, Python (PyQt6), C
> - Worked with 3 other placement students across the 12 months on a data logging solution for condition monitoring and system development of ECUs.
> - Owned the PyQt6 desktop app: live plotting of ECU signals, signal selection from A2L files, CSV export and custom widgets, plus C on the intermediary board for mock data output for UI testing and state machine handling.
> - Scoped the project with stakeholders across the site to plan, creating 71 traceable requirements, flowcharts and Gantt tracking.
> - Presented completed project to managers and site leads, and wrote handover documentation.

Surrey Sports Park 2023 – 2024
Front of House Advisor *Guildford*

Communicated with customers, rapid learning and use of new systems while problem solving in new situations.

Swim School Academy 2021 – 2023 + holidays 2024/25
Lifeguard *Southampton*

Watched over children's swimming lessons to help prevent accidents and provide first aid when needed. Responsible for the pool environment's upkeep and organisation, communication with parents, assisting teachers and safeguarding the children.

Technical Skills

Languages:	Python, Java, C
Frameworks + Libraries:	PyQt6, tkinter, PyTorch, CUDA, ROS2
Testing:	JUnit, pytest, TDD, Gherkin (BDD), valgrind
Tools:	Git, Linux, Azure DevOps, uv, moon, Mermaid, RViz, Gazebo
Automotive:	CAN, UDS (ISO 14229), ISO-TP, A2L, TARA / ISO 21434, Vector and PCAN interfaces

Other

Surrey Video Games Society 2025 – 2027
Overwatch Game Rep *University of Surrey*

Managing the Overwatch side of SVGS, ran trials and managed 3 teams of various skill levels competing in national university leagues (NSE, USS).