

# Arthur Williams CV

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## PROFESSIONAL SUMMARY

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Final-year Computer Science student specialising in cyber security and AI-driven threat detection. Experienced in building SOC simulations, malware classification systems, and cloud-based monitoring infrastructure. Strong foundation in Python, Linux, and security analytics.

## EDUCATION

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<b>Liverpool Hope University</b> <i>BSc Computer Science (Predicted First)</i>	Liverpool 2023 – 2026
<b>George Spencer Academy</b> <i>A-Levels in History, Psychology, Biology; AS in Advanced Mathematics</i>	Nottingham 2021 - 2023

## PROJECTS

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<b>Agentic SOC Dashboard</b>   <i>Node.js, JavaScript, Github</i>	January 2026
<ul style="list-style-type: none"><li>Built a Node.js-based SOC simulation platform to ingest and visualise real-time security events, implementing alert prioritisation and analyst-style response workflows.</li><li>Designed monitoring logic to simulate incident triage within a full-stack dashboard environment.</li></ul>	
<b>Explainable AI (XAI) Malware Detector</b>   <i>Python, TensorFlow, Jupyter, SHAP</i>	February 2026
<ul style="list-style-type: none"><li>Trained a TensorFlow neural network on memory dump data, achieving 99% classification accuracy on test samples.</li><li>Integrated SHAP to provide feature-level explainability for analyst validation and model transparency.</li></ul>	
<b>Semi-Supervised Ransomware Threat Engine</b>   <i>Python, Network Security</i>	September 2025
<ul style="list-style-type: none"><li>Developed a semi-supervised anomaly detection model in Python achieving 99% accuracy in simulated ransomware traffic scenarios.</li><li>Analysed structured network data to generate early-warning alerts for suspicious behavioural patterns.</li></ul>	
<b>Cloud-Based IoT Monitoring System</b>   <i>JavaScript, AWS, MongoDB</i>	December 2025
<ul style="list-style-type: none"><li>Built a full-stack IoT system to monitor environmental factors like humidity and temperature in real-time.</li><li>Deployed the infrastructure on AWS, utilising API requests to fetch and store data in a MongoDB database.</li><li>Developed a web service frontend to visualise sensor data for end-users.</li></ul>	

## TECHNICAL SKILLS

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**Proficient Languages:** C#, Python, JavaScript  
**Familiar Languages:** C++, C, PHP, Java, SQL (MySQL, PostgreSQL), Kotlin  
**Frameworks:** Node.js, React.js, TensorFlow.js, HTML5/CSS3  
**Developer Tools:** Git / GitHub, Linux (Ubuntu/Mint), AWS, VS Code, Visual Studio, IntelliJ and Android Studio.  
**Libraries:** pandas, scikit-learn, NumPy, Matplotlib, MongoDB, MySQL, PostgreSQL

## EXPERIENCE

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<b>Shift Leader at Tesco</b>	2021 – Present
<ul style="list-style-type: none"><li>Lead shifts in a high-volume retail environment, supervising team members and ensuring operational continuity.</li><li>Developed strong communication, incident resolution, and prioritisation skills under time pressure.</li></ul>	
<b>Freelance Database Integration Specialist</b>	2025 – Present
<ul style="list-style-type: none"><li>Supported small-scale database integration and migration tasks across SQL environments. Assisted with schema design, query optimisation, and access control configuration. Applied best practices in data integrity and performance tuning.</li></ul>	