

Aryn Keenan

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Personal Profile

A motivated final-year Computer Science student and Embedded Software Engineer, with hands-on experience building production software across enterprise backend systems and embedded/hardware projects. I have developed strong skills in programming, communication and teamwork through my placement at Citi and my ongoing engineering role at Laser Electronic Systems, and I am enthusiastic about expanding my problem-solving and programming abilities in a professional environment.

Education & Qualifications

University of Ulster, Belfast – 2023-2027

BSc (Hons) in Computer Science with Certificate of Professional Placement | Predicted 2:1

- Programming in Placement (70%)
- Data Analytics (81%)
- Server-Side Development (75%)

St Louis Grammer School, Kilkeel – 2018-2023

A-Levels: Business Studies (B), Technology & Design (A)

BTEC: Level 3 Extended Certificate in Information Technology (Distinction *)

GCSE's: 9 Grades A*-C*, including Maths (A) and English (C*)

Professional Experience

Founder | Eyretel Labs | 2026 – Present

- Founded Eyretel Labs, a sole trader company with a product range, Empire Gaming, building casino gaming machine software.
- Architected and built Poker, a LibGDX/Java video poker game for Raspberry Pi 4B under the Empire Gaming range, developed as a full software replacement for a legacy Z80-based casino gaming machine, spanning core gameplay, a staff-facing service menu, and hardware integration.
- Integrated real casino payment hardware (coin mechanism, note acceptor, and coin hopper) via a Paylink CCTalk SDK, building a custom Java hardware-abstraction layer to handle live cash-in and payout transactions.
- Designed and built a full staff-facing service menu covering machine settings, meter readings, and hopper refill/dump workflows, with persistent configuration and live hardware state.

Embedded Software Engineer | Laser Electronic Systems | Newry | June 2026 – Present

- Built Red Hot Monitor end-to-end: a Raspberry Pi Zero 2 W with GPIO pulse detection, a Spring Boot/PostgreSQL backend hosted on Railway, and a Next.js/Tailwind dashboard hosted on Vercel, for remote monitoring of casino machine activity.
- Reverse-engineered a legacy poker machine's Z80 ROM using Ghidra, cleaning a corrupted ROM dump and identifying a custom character encoding as the basis for a planned ROM editor tool.

Technology Analyst | Citi | Belfast | June 2025 – May 2026

- Trained a new graduate team member on the codebase and API development through one-to-ones and shadowing; by the time I moved to the front-end team, he was working effectively on stories with minimal support.
- Granted and managed access to our Kafka topics for partner teams across the globe, adding their ACLs so they could reliably read and consume our data to build their own downstream services.

- Developed and maintained backend services using Java, Spring Boot, Maven, and Liquibase, contributing to a large-scale enterprise application.
- Built multiple REST APIs from scratch, including model, controller, service layers, and comprehensive test coverage.
- Delivered numerous vulnerability fixes, resolving dependency issues, upgrading Docker images, and improving system security using tools such as SNYK.
- Enhanced and refactored existing APIs by updating validation logic, handling complex business rules, and ensuring data integrity across services.
- Worked with Kafka to update schemas, manage topics, and integrate message-driven data into internal applications.
- Implemented database changes, including table renaming and schema updates, ensuring consistency across backend systems.
- Wrote effective unit and integration tests, improving reliability and early detection of defects.
- Collaborated in an Agile team environment, participating in sprint ceremonies, code reviews, and cross-team discussions.
- Produced technical documentation, including a Confluence user guide, to support internal users and improve onboarding.

Hardware & Software Technician | Laser Electronic Systems | Newry | 2021 – May 2025

- Diagnose and repair software issues to ensure systems run efficiently
- Perform fault-finding and diagnostics to resolve complex technical problems
- Design & analyse software
- Assisting customers and helping to resolve their issues
- Testing software before distributing to the market to ensure reliability
- Collaborate with international businesses to help distribute their products in our market
- Create concept drawings for new machines and software UI using GIMP
- Research emerging technologies and evaluate their effectiveness and potential impact

Projects

- Founded AJ Studio under my Eyretel Lab sole trader business, a web design business building sites for local County Down businesses, hosted on Cloudflare Pages, with a Next.js/Spring Boot AI chatbot add-on in development.
- Created a Chrome Extension using HTML, CSS, JS to compare the users' skills against a job listing in the field of IT by scraping the web page for keywords and comparing them with their CV.
- Developed a data extraction tool using only Python and a Raspberry Pi to gather vital data from casino games, organise it, and sends the data to the client via Email

Skills

Operating Systems

Experience using a wide range of OS: Windows XP, Windows 7 to 11, Linux (Ubuntu & Debian), Mac OS and Raspberry Pi OS

Software Applications

Proficient use of Visual Studios, Oracle Db, Eclipse, IntelliJ IDE, PyCharm, X-Code, Wireshark, Figma, Photoshop, GIMP, Affinity

Well-Versed in Microsoft Word, Excel, PowerPoint, Access, Publisher, OneNote, Teams, Visio as well as Google Docs, Slides and sheets

Development Language

Skilled in Backend languages: Python, Java, and R

Knowledge in Frontend languages: HTML, CSS, JavaScript, TypeScript

Know how to work with frameworks like: Spring Boot, React

Teamwork

I have vastly improved my teamwork skills in my current job at Laser Electronic Systems LTD. I work with members from different backgrounds and skill levels to design and manufacture new machinery and software.

Awards/Achievements

- Certificate in “Learn JavaScript” By Scrimba
- Certificate in “Green Software for Practitioners” by The Linux Foundation
- Certificate in the “Fundamentals of Digital Marketing” by Google
- Member of UU Computing Society (2023 – Present)
- Excellent Achievement Award at AS Level
- GCSE IT Certificate