Irvyn Hall

Software Engineer

Software engineer focused on AI systems, real-time speech tooling,
and resilient infrastructure. Builds fast, measurable systems with
strong observability.

Portfolio: irvyn.us
GitHub: github.com/1rvyn
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Skills

Languages: Go, Java, JavaScript, TypeScript, Python, C#, C++, HTML, PowerShell, SQL, React
Cloud: Cloudflare, AWS, Azure, Google Cloud, Vercel, OpenAI
Systems: Node.js, Svelte, Next.js, Docker, Kubernetes, PostgreSQL, Redis, Prometheus, Grafana, Linux, WebSockets
Tooling: Git, CI/CD, Jira, Teams, Slack, Qodana, Fly.io, Gradle

Work Experience

Software Engineer II, Opus 2
March 2025 - Present

Go • Python • CUDA • AWS EC2 • ASR • LLM • Data Science

- Scaled and hardened internal Whisper GPU infrastructure across availability zones to improve resilience and throughput.
- Improved backend and frontend performance of real-time ASR services so editors could work with transcripts of effectively unlimited size.
- Led the implementation of LLM-based post-processing in the ASR pipeline, improving transcript quality and reducing manual editing effort.

Software Engineer, SecuriGroup Ltd
August 2023 - March 2025

Go • Protocol Buffers • GraphQL • Azure • Prometheus

- Implemented observability with Prometheus, Grafana, and Bugsnag, cutting backlog bugs by roughly 80%.
- Built backend Go APIs across Protocol Buffers, GraphQL, and REST for 25,000+ users across the UK and Ireland.
- Architected and deployed an Azure AI/ML document pipeline for 1,200+ live clients. RAG over insurance documents that made it into production!
- Led DevOps work across Azure, AWS, and internal systems, reducing deployment effort and time by an order of magnitude.
- Mentored junior developers in Go and day-to-day engineering practice.

Software Engineer, Aberdeen Drilling School
May 2023 - July 2023

C++ • Go • PostgreSQL • Redis • OpenAI

- Worked across C++, PowerShell, Go, HTML, JavaScript, PostgreSQL, Redis, CI/CD, and OpenAI APIs.
- Designed integration tests that improved installation and cleanup time by minutes.
- Built automation scripts and a RAG-based internal chatbot over company documentation.

Lab Assistant, Robert Gordon University
September 2022 - May 2023

Node.js • JavaScript • MongoDB • REST

- Helped the dean of our school Dr John Isaacs teach Dynamic Web Development courses covering Node.js, jQuery, WebSockets, Express, Linux, REST APIs, and MongoDB.

Summer Intern Software Engineer, Leonardo
May 2022 - August 2022

C# • GraphQL

- Led the refactoring of C# services from REST to GraphQL, reducing over-querying and improving performance.
- Contributed to planning work for moving internal testing projects toward private-cloud architecture.

QA Engineer, Moonsworth LLC
January 2021 - October 2022

Python • A/B testing • Analytics • Gaming • Data Science

- Engineered a heuristic packet-based anti-cheat system that detected more than 300,000 cheaters.
- Wrote internal documentation and trained staff on anti-cheat analytics.
- Drove release QA and experimentation work that reduced bug reports by roughly 80%.
- Managed a team of 4 engineers by creating and tracking work through Trello and Jira.

Education

Robert Gordon University, Aberdeen
September 2021 - July 2023

Bachelor of Science in Computer Science
4.0 GPA/1st Class

North East Scotland College, Aberdeen
September 2019 - August 2021

Diploma of Higher Education in Computer Science
4.0 GPA