Senior Python & Platform Engineer

Infrastructure, Cloud, Platform & Development specialising in Python, Linux, AWS, CI/CD and other distributed systems.

James Murray

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Senior Python & Platform Engineer | Linux, AWS, CI/CD & Automation

Software and infrastructure engineer with over 24 years' experience designing, developing and supporting complex production systems. Specialising in Python, Linux, distributed computing, hybrid cloud infrastructure and CI/CD, with a track record of delivering reliable, maintainable solutions for geographically distributed teams.

Some career highlights include developing AWS infrastructure automation that helped scale compute capacity to 2.4 times on-premises resources, modernising software deployment environments and building production applications used across multiple studio departments.

Additional Skills:

Software Development: Python, Bash, APIs, PySide, PHP, UI Design, MySQL, MongoDB, NoSQL, Data Integration

Infrastructure & DevOps: Networking, Linux / Linux Servers, Isilon Trained, Git / Version Control, Infrastructure & Systems, Docker, Release Engineering , GitLab Automation

Engineering & Collaboration: Jira, Agile capable, Technical Problem Solving, Cross-functional collaboration, Documentation writing & knowledge sharing.

ONE OF US VFX

Pipeline Technical Director *(Software Engineer – Platform & Infrastructure)*

NOVEMBER 2025 - NOVEMBER 2026 (FTC) - GLASGOW (REMOTE)

- Investigated and resolved complex issues across distributed production systems, tracing workflows through publishing, validation, dependency management and distributed compute execution to identify root causes and improve reliability, particularly when dealing with cross-site assets.
- Developed and enhanced Python-based production tooling to identify incorrectly prepared production elements, helping prevent workflow failures and reduce manual intervention.
- Designed and implemented an application-independent machine learning integration framework using Ultralytics YOLO (Computer Vision API & Models) providing isolated identification/detection and segmentation services.
- This enabled artists to experiment with computer-vision automation and training of specific AI models based on visual datasets of their own.

PIXOMONDO

Lead Pipeline Technical Director *(Lead Software Engineer – Automation & Integration)*

JANUARY 2025 - OCTOBER 2025 GLASGOW (REMOTE)

- Led cross-department technical support team who were responsible for providing tooling, workflow engineering, production support and delivery across multiple projects.
- Modernised production workflows and infrastructure to improve reliability, efficiency and operational consistency.
- Delivered and maintained production systems supporting distributed teams, working across FX, lighting and asset workflows.
- Worked with technical leadership and multidisciplinary teams to investigate requirements, assess technical approaches and deliver practical solutions.

GHOSTVFX

Senior Pipeline Technical Director *(Senior Software Engineer – Platform & Developer Tools)*

MARCH 2022 - DECEMBER 2024, GLASGOW (REMOTE)

- Designed, built and migrated GHOSTVFX to a new software environment using Rez for dependency and package management, leveraging global infrastructure to improve scalability and consistency across production.
- Developed a PySide2 management application integrating with ShotGrid (Production tracking and workflow management platform) used at project and user systems level.
- This suite of tools was key in automating operational workflows and configuration to remove/reduce friction and interruptions to active projects.
- Collaborated with the systems team to establish CI/CD and release processes, enabling reliable, semantic-versioned deployment of internal and external applications, tools and packages.

AXIS STUDIOS

Lead Show Technical Director *(Technical Lead – Production Systems)*

MARCH 2021 - MARCH 2022, GLASGOW (REMOTE)

- Led team of Show TDs who ensured technical delivery across production and infrastructure teams, coordinating technical requirements, problem solving and workflow improvements.
- Continued to refine core production and infrastructure systems as the studio scaled up once more.
- Designed and implemented workflow and infrastructure improvements across multi-location production environments.

Pipeline Technical Director *(Software Engineer – Infrastructure & Automation)*

AUGUST 2017 - MARCH 2021, GLASGOW (ONSITE THEN REMOTE)

- Developed and maintained core pipeline and infrastructure systems supporting the studio's growth and increasingly distributed production environment.
- Worked as part of the R&D team to evaluate and implement new technologies, automation and infrastructure approaches.
- Developed Python automation to monitor render workloads and provision AWS EC2 Spot Fleets on demand, extending compute capacity beyond the on-premises render farm.
- Benchmarked EC2 instances to balance performance, availability and cost; helped Axis scale peak rendering capacity to 2.4× its on-premises farm.
- Automated render-data synchronisation between on-premises infrastructure and AWS, moving job inputs and returning completed frames. Coverage: AWS case study (2021) | Digital Media World (2022).

Render Infrastructure & Systems Engineer

FEBRUARY 2004 - AUGUST 2017, GLASGOW (ONSITE)

- Designed, developed and maintained core project management, IT, pipeline and distributed-compute systems which enabled support for multiple concurrent projects.
- Managed and developed infrastructure supporting a large-scale compute (render) farm whilst integrating project systems, IT infrastructure and production workflows.
- Collaborated with Thinkbox and RenderNation on offsite rendering R&D; quoted in AWS's Halo 5 / Deadline case study.
- Helped build server rooms and deploy compute, networking and storage infrastructure across multiple studio sites.

Other Roles and Education:

Absolute Studios / Production Asst, Pipeline and Render TD

(Production Systems & Technical Support)

SEPTEMBER 2002 - AUGUST 2003 - GLASGOW

Speakeasy Productions / Technical Coordinator

APRIL 2000 - SEPTEMBER 2002, PERTH, UK

Lanarkshire TV / VT and Broadcast OPs

FEBRUARY 1999 - APRIL 2000, LANARKSHIRE

Education: HNC Computing - Bell College

Hobbies: Pipeline and infrastructure development through my own home CI/CD lab.

Electronics, DIY, walks, film (of course) and family