

SIMON LOFFLER

SOFTWARE DEVELOPER

sighmon@sighmon.com
sighmon.com

WORK

ACMI museum

2018 - present

Senior Software Developer

Senior developer in the experience and digital team. Responsible for building and deploying a management system, API, and application software for 400 Raspberry Pis, handling 20,000,000 interactions, as part of a \$40M museum renewal project.

Built integrations for importing and syncing data from external APIs including Vernon, Tessitura, Jira, Axiell, Europeana, Wikipedia, Wikidata, TMDb, IGDb, OpenAI, Huggingface.

Built an ffmpeg based transcoder/transcriber/image captioning pipeline for 5,000 collection videos, creating embeddings and search indexes updated nightly.

Deployed our software to DFF museum in Frankfurt, SLQ Library in Queensland, and National Portrait Gallery in Canberra.

Languages: Python, Swift, Go.

Stack: Vuejs/Flask/Django/Wagtail, Elasticsearch, Docker, BalenaOS, Kubernetes, Terraform, iOS.

MOD. science gallery

2017 - 2018

Digital Exhibitions Manager

Built a new \$3M museum at the intersection of science and art.

Responsible for the production and deployment of all software and hardware projects, including an animatronic head.

Languages: Python, Ruby.

Stack: Rails, Ansible, Ubuntu, iOS.

New Internationalist

2000 - present

Software Developer

Developed a digital subscription system and API, with native Android and Apple applications. Upgraded and maintained all systems for thirteen years.

Languages: Ruby, Objective-C, Java.

Stack: Rails, Heroku, iOS, Android.

EXPERTISE

- **Debugging**
Software & hardware
- **Time management**
Complex systems
- **API Integration**
Data syncing
- **Production**
Robust, automated

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PROJECTS & TALKS

XSOAR/SXIAM

integration

2025

Built a Palo Alto Cortex XSOAR/Cortex XSIAM integration pack for Prometheus metrics. Ingests and parses rows of metrics data from the Prometheus query API.

MJML Rails

2016 - present

Built a Rails Gem integrating the MJML email framework for automating user facing email templates, optimised for Gmail, Outlook, Apple Mail, and other popular email clients.

Downloads: 7,976,027

Open source contributors: 48

iOS applications

2015 - present

Built a Tesla Powerwall application for AppleTV, companion app for a Sensirion CO2 sensor, Spock voice chat, and Timelapse helper.

Downloads: 35,221

IoT automation

2021 - present

Built Arduino/ESP32/Raspberry Pi integrations using Apple HomeKit for environmental sensors, water quality sensors, geiger counters, and home solar/batteries. Data and graphing using Prometheus/Grafana.

Conference talks

2020 - present

FACT 2024/25, Linux Conference Australia (LCA) 2022, Museums and the Web 2021, VALA tech camp 2021, Linux Conference Australia (LCA) 2021, Pycon Australia 2020.

EDUCATION

University of South Australia

Bachelor of Industrial Design

Including electives in engineering, software development, and design for manufacturing and disassembly.

Stanford University Online

Machine Learning

Supervised neural networks, unsupervised deep learning, best practices and bias/variance theory.

Huggingface

Reinforcement Learning

Deep reinforcement learning, Q-learning, automatic hyper-parameter tuning, policy gradients, for use in training videogames and robotics.