

JOSHUA PAGAN

SOFTWARE ENGINEER
Asheville, NC, USA

CONTACT

813-528-0971
joshuajpagan@gmail.com
github.com/paganjoshua
linkedin.com/in/joshuajpagan

WEBSITE

<https://jynx.dev>

EDUCATION

Codesmith | New York
Engineering Residency 2020
University of North Carolina
Bachelor Fine Arts Drama 2017

CERTIFICATION

Red Hat Certified
System Administrator
Certified 2021 on RHEL 8

TECHNICAL SKILL

Experienced:

Golang	Node.js/Express
Docker	Kubernetes
Ansible	Bash
Nginx	Systemd
RHEL 7/8	Fedora
SELinux	Firewalld

Javascript	React
Typescript	Webpack
Tailwind CSS	HTML
CSS	SVG

Jira	Agile
Scrum	Kanban
Git	GitHub

Knowledgeable:

Redux	C++
GraphQL	Jest
MongoDB	Supertest

INTERESTS

Camping/Hiking | D&D
Acoustic Guitar
Independent Music/Cinema

EXPERIENCE

Software Architect

March 2021 - Present

Jynx.dev | Development Incubator

Tooling & Operations | Internal tools and services

- Containerized all eligible webapps and services through multi-stage builds which run on "scratch" images as an unprivileged non-root user
- Implemented Golang/Systemd webhooks service which handles deployment events and direct HTTP commands for a more scalable CI/CD pipeline
- Designed Golang API which constructs and executes Ansible commands to run playbooks with appropriate parameters as a given Ansible user to streamline CI/CD automation
- Spearheaded a system-wide Kubernetes graduation initiative

HTTP & Webapps | Webservers & Fullstack browser applications

- Designed Golang webserver to be efficient, easy to read, maintain, and test by easing the addition and removal of endpoints, handlers, and middleware
- Decreased site latency by templating site content and into dynamic templating map initialized once at server startup
- Designed and implemented an interactive map of the conceptual system architecture with React
- Built messaging logic for internal Slack-like team based messaging app in React, Typescript, Express / Node.js, and TailwindCSS
- Customized Webpack development and production bundles complete with dev-server with hot-reload functionality for a complete development environment

Infrastructure & System Administration

- Composed Ansible playbooks which provision all aspects of the system, and can set up new control and production nodes, handle deployment events, and everything below
- Containerized a local image registry service which automatically updates itself with a build from a passing push to the GitHub development branch
- Scaffolded Nginx reverse-proxies which delegate webhook requests to their corresponding services on the control node, or handles client requests on the production nodes
- Customized the SELinux policies on Fedora and RedHat work and production systems to allow only those actions absolutely necessary for operation
- Hardened security layering with Firewalld and Fail2ban to detect and protect against inappropriate or unknown access into and out of the system

PROJECTS & OPEN SOURCE

Swordfish | Modular Containerized Development Environments

- Developed Docker Compose YAML files to manage Fedora and Arch Linux OS images to set up your custom development environment with only the tools you need for the current job
- Bash scripting manages package manager configuration to "decompress and hydrate" OS images for more complete development environment
- Optional handling for running inside VSCode dev containers
- Optional handling for X server pass-through for use by graphical applications

PostQL | GraphQL Performance Testing and Metrics Monitor (archived)

- Acted as Scrum Master for small team of developers on the project, using Jira software to manage Scrum board and Sprint planning
- Leveraged knowledge of Redux, GraphQL, Typescript, MongoDB, and Node.js to evaluate progress, review code, and fill in gaps when devs were overcommitted