JOSHUA PAGAN

SOFTWARE ENGINEER
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CONTACT

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PORTFOLIO

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

PROJECTS & OPEN SOURCE

Jynx.dev | Development Site & System   2020 - Present

Software Engineering

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 GitHub and Docker Hub events 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 Kubernetes system-wide 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 templatizing 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

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

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