JOSHUA PAGAN

SOFTWARE ENGINEER
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CONTACT

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TECHNICAL SKILL

Experienced:

Golang
Node.js / Express
Bash
Fedora
Stratis
Logical Volume Manager (LVM)

Docker
Ansible
Nginx
RHEL 7/8
SELinux
Virtual Data Optimizer (VDO)

Javascript(ES6)
Typescript
Tailwind CSS
Git / GitHub

React
Webpack
HTML / CSS

Knowledgeable:

Kubernetes
Redux
GraphQL
MongoDB
Mongoose

OpenShift
C++
Unreal Engine 4
Jest
Supertest

PORTFOLIO

https://jynx.dev

CERTIFICATION

Red Hat System Administrator

Certified 2021 on RHEL 8

EDUCATION

Codesmith | New York
Engineering Residency 2019

University of North Carolina
BFA Drama

INTERESTS

Travis-Style Acoustic Guitar | Coffee | Independent Music/Cinema | Camping/Hiking

EXPERIENCE

Jynx 2020 - Present

Principal Developer

- Containerized and built Golang server and React webapp with multi-stage builds and run off of “scratch” image as an unprivileged non-root user
- Abstracted Golang-over-Ansible wrapper into reusable component which constructs then executes Ansible commands with appropriate parameters as given ansible user, for use by internal webhooks service
- Designed and implemented modular, tree-like Golang webserver
- Built router to register endpoints with methods defined as http.HandlerFuncs to ease the passing and scoping of handler dependencies
- Middleware struct constructs a linked-list of middleware nodes which implement a linking interface, then returns a handle to that chain to be used as the ServeMux
- Templatized site content and into dynamic templating map, hung off the Router implemented by Server
- Designed and implemented an interactive map of the conceptual system architecture with React

System Administrator

- 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
- Implemented custom Golang/Systemd webhooks service which handles triggers from Github and Dockerhub and runs corresponding Ansible playbook with appropriate parameters and permissions
- Containerized a local container 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 to allow only those actions absolutely necessary for the control/development nodes and productions nodes to operate
- Firewalld and Fail2ban harden security layering to detect and protect against inappropriate or unknown access into and out of the system

OPEN SOURCE

Swordfish | Modular Containerized Development Environments

- Contained and Fedora and Arch Linux OS environments with modular volume system to set up your custom environment with only the tools you need for the current job
- Bash scripts manage 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 display manager pass through for use by graphical applications

Jynxcord | Browser alternative SPA for Slack/Discord

- React Router client-side routing handles board/team switching for near immediate UI first paint
- Customized Webpack development and production bundles complete with dev-server
- Client composed entirely in Typescript
- Styled with TailwindCSS
- Containerized with Docker Compose
- Node.js backend ferries all data request from Mongoose/MongoDB or for sample data runs a local JSONdb