SIDHARTH SONI

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SKILLS

DevOps: Kubernetes, Docker,

Concourse CI, Jenkins, GitHub Actions, Azure, AWS, Prometheus.

Linux: Linux Kernel Contribution,

Systemd Scripts, Cron Jobs, Automation Scripts, Filesystem Internals.

Server Admin: NGINX Services, VPN

Setup and Management, SSH-over-VPN, DNS

Management.

Language: Go, JavaScript.

Database: Postgres, MongoDB,

MSSQL, Firebase Realtime

DB, Redis.

ACHIEVEMENTS

Linux Kernel Contributor: Contributed to the Linux Kernel by proposing a <u>Patch</u> adding support for home key in HP notebooks. The patch has been approved.

Developed Symmetric Ciphers: Created an AES compliant 128-bit symmetric Feistel block cipher after researching into cryptography studying cipher modes, algorithms, principles, standards. A paper is in draft.

Security Analysis and Reporting: Discovered and reported exploits in Oxford Dictionaries API.

Cryptography: Designed <u>a way</u> to do secure user authentication without storing passwords based on simple cryptographic primitives.

Project Management: Managed the Cosmic-OS Project from Jan to Dec 2017.

Over The Air Updates: Created a custom C Program to demonstrate independent software upgrades using shell scripts by checking upstream for version change.

EXPERIENCE

SITE RELIABILITY ENGINEER - 1 | RAPYUTA ROBOTICS | SEPTEMBER 2021

- Led the effort to migrate monitoring and alerting stack to openshift user workload monitoring stack
 - o This led to a more robust monitoring setup
 - Alerts got access to cluster metrics
 - Exposed missed Openshift cluster alerts
- Developed a new hardware-in-loop (HWIL) stack based on Sysbox which helped reduced cost
 - Connected HWIL k8s cluster to the Office and Pritunl network through WireGuard for seamless connectivity to HWIL devices
 - Created an operator to create, manage and onboard devices automatically into the rapyuta.io platform
 - Worked with testing and dev team to smoothly migrate to the new stack
- Reliability Improvements
 - Created a job to clean-up rapyuta.io development instances from staging when they aren't needed
 - o Migrated certificate issuing and renewal to cert-manager

DEVOPS ENGINEER | DOLPHINCHAT | APRIL 2021 - SEPTEMBER 2021

- Migrated DNS to Cloudflare with zero downtime
- Setup SSH-over-VPN, Firewalls, access controls on servers and databases
- Recommended an architectural change to fix performance bottlenecks.
- Delivered session on Git to help familiarise the team with git and the development and deployment workflow

LINUX SERVER ADMINISTRATION | COSMIC-OS

- Setup and managed instances of Gitea, Jenkins and Gerrit.
- Setup WireGuard VPN, SSH-over-VPN, Firewall on the server.
- Setup RAID-0 and build cache to improve build performance.

PROJECTS

Fitant Snippets: A modern paste bin which supports E2E Encryption and VS Code editor as frontend; written in Angular and Golang – <u>GitHub</u> - <u>Website</u>

Nginx Auto Config: A utility to create NGINX virtual server configuration files using presets – <u>GitHub</u>

Oxford Dictionary Bot: A telegram bot to query the Oxford Dictionary API to get Definitions, Examples, etc. – $\underline{\text{GitHub}}$

SEAT 256 CFB: A CLI program which implements my SeaTurtle cipher - designed to take advantage of concurrency – <u>GitHub</u>

EDUCATION

B.C.A.

Manipal University Jaipur 2021 8.28 **I.S.C**

M.C. Kejriwal Vidyapeeth 2018 71.5% C.B.S.E.

Sudhir Memorial Institute 2016 6.4

OTHER

GitHub profile:

github.com/sid-sun

Personal Blogs:

medium.com/@realsidsun