Aravinth T M

STUDENT DEVELOPER, FREE SOFTWARE ACTIVIST

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Skills

Languages	Rust, Python, Bash, JavaScript, TypeScript, Java
Technologies	Actix Web, WebAssembly, Django, React.js, Docker, PostgreSQL, SASS, Redis, Open API, Nginx, GraphQL, Gemini, OAuth, Zola, JSON-RPC, Hyperledger Fabric
DevOps	Docker, Designing micro-services, GitHub Actions, Travis CI, Netlify
Engineering	Test-driven development, version control workflow, code review, systems designing
General skills	Rapid leading, time management, team management, Linux Knowledge

Education

VIT AP University   *Near Vijayawada - 522237, Andhra Pradesh, IN*

Bachelor of Science in Computer Science, GPA: 7.83/10.00   *present*

Experience

Null (infosec) Chapter   *VIT AP, AP*

Chief Development Officer & Technical Advisor   *July 2021 - PRESENT*

- Webmaster

Women in Open Source(WiOS)   *VIT AP, AP*

Tech Lead   *July 2021 - PRESENT*

- Webmaster

mCaptcha   *Homepage*

Founder CEO   *March 2021 - PRESENT*

- Design and develop high-performance, horizontally scallable backend: Rust, Actix-Web, Postgres, Redis
- Design and develop high-performance, lightweight, server-side rendered frontend: Sailfish, TypeScript, SASS
- Design and develop custom native Redis module
- Documentation
- Deployment and software distribution

batsense.net: self-hosted, privacy focused indie webring   *Services*

Owner Webmaster   *2019 - PRESENT*

- Search engine
- Secure chat platform
- Tor node
- See legend for full list of services: https://batsense.net/services

Null (InfoSec) Chapter   *VIT AP, AP*

Tech Lead   *October 2020 - July 2021*

- Designed and built a Capture The Flag event for freshmen introduction event in under two weeks(Source Code)
- Webmaster

Actix Web   *Project Code Base*

Contributor   *November 2020 - PRESENT*

- Documentation: migrated the project to intra-doc links
- Code recipes

Projects

Athena
Source Code

DEVELOPER
August, 2021 - present

- HTTP command and control framework
- JavaScript based cross-platform payload
- weaponized version of VS Code as proof-of-concept RAT

Actix Web Ecosystem libraries
Collection

DEVELOPER
2021

- Cache Buster: caching library written in rust
- Actix Stateful Sessions: Redis based opaque session implementation

Redis Leaky Bucket native module
Source Code

DEVELOPER
June 2021

- active leak
- supports cluster mode
- supports persistence through RDB
- High performance(see project's README)
- all subroutines are tested

Damn Vulnerable Blockchain
Source Code

DEVELOPER
January 2021

- vulnerable by design(attack scenario detailed in project's readme)
- p2p blockchain implementation
- in-built peer discovery service
- Proof of Stake with coinage
- client library
- 88% code coverage (as of January 17, 2021)

Wagon
Source Code

DEVELOPER
November, 2020 - present

- High performance membership management platform
- Free Software alternative to EventBrite
- Follows the 12 Factor App recommendation
- 91% code coverage (as of December 14, 2020)

Identity
Source Code

DEVELOPER
August 2020 - present

- Identity and access management platform built for the IndieWeb
- OpenID Connect based
- Uses OAuth2.0 for third-party integration
- Uses novel actor model based, proof-of-work DoS protection mechanism
- Follows the 12 Factor App recommendation
- 70% code coverage (as of December 14, 2020)
- Performant, built with Rust

Hackers Union CTF
Source Code

DEVELOPER
Oct 2020

- High performance CTF platform
- real time scorecard

IDS Matrix
Source Code

DEVELOPER
June 2020

- Light weight Intrusion Detection System for GNU/Linux Systems
- Built on top of Matrix(a decentralised messaging service)

Porting postmarketOS to Samsung Galaxy Tab E 9.6(SM-T561)(samsung-gtle36)
Home Page

DEVELOPER AND OFFICIAL MAINTAINER
July 2020

- Uses upstream Linux kernel
- Display and WiFi works

Yify Torrents Wrapper
Source Code

DEVELOPER
June 2020

- NOTE: I don't support piracy, this is a project that I built for fun
- Fetches data from Yify Torrents
- Schedules jobs on server for downloads
- Updates inventory
- Provides an interface to stream content

Tracking

DEVELOPER

- IoT-based, cheap three-dimensional indoor positioning system
- Visual Range accuracy
- Easy deployment, uses existing infrastructure(WiFi) routers