Hanif Bin Ariffin

Programmer

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Github | LinkedIn | Personal Blog

SUMMARY

Highly experienced and independent problem solver. Contributes to various widely used open source projects

WORK EXPERIENCE

Fullstack developer

Dec 2020 – Feb 2022

Setel | *Malaysia* | https://www.setel.com/

Responsible for implementing and maintaining the loyalty system for self-checkout, the inventory and the store ordering system

Senior Fullstack Developer

Feb 2022 – Jul 2022

Globelise | *Singapore* | https://www.globelise.com/

Designed and implemented the backend system for a global hiring management system and 3rd party payroll integrations.

Software Developer

Dec 2023 – Present

Confinex Technologies | *Pulau Pinang* | https://confinex.com/

Help develop and maintain an entire trading infrastructure stack from market data all the way to post-processing to sending orders

- Developed sub-microsecond market data processing library
- Used kernel bypass for packet filtering
- Developed automations to process market data
- Developed risk management and order sending system

EDUCATION

BSc in Computer Engineering

Aug 2015 – Aug 2020

University of Ottawa | https://www2.uottawa.ca/en

PROJECTS

MIPS processor in VHDL | https://github.com/hbina/mips_processor

Circuit schematic for a basic MIPS processor that supports forwarding unit and branch protection in VHDL

- Support forwarding unit
- Support branch protection

Technologies: VHDL, Altera Quartus II Simulator

radish | https://github.com/hbina/radish

Multithreaded implementation of redis in Golang for learning purposes

- Close to 90% of reference redis performance without any optimizations
- Discovered a crash in redis while developing this
- Passed unit/types/string, unit/types/zset, unit/types/set
- Supports block and non-blocking commands

Technologies: redis, golang

Fatuous | https://github.com/hbina/fatuous

Basic 3D renderer

- Able to load simple 3D models and skyboxes (Uses ASSIMP)
- Support object culling, tesselation and shadows

Technologies: C++, OpenGL

OPEN SOURCE CONTRIBUTIONS

Godot – *Contributor* | View Contributions

Multi-platform 2D and 3D game engine written in C/C++14

- Debugged various memory issues and crashes
- Implemented and fixed various UI features

Rust Coreutils – *Contributor* | View Contributions

Cross-platform Rust rewrite of the GNU coreutils

- Reimplemented tr to be fully compatible with GNU tr (passes all tests)
- Various improvement to ls
- Various improvement to more

redis – *Contributor* | View Contributions

Redis is an in-memory database that persists on disk. The data model is key-value, but many different kind of values are supported: Strings, Lists, Sets, Sorted Sets, Hashes, Streams, HyperLogLogs, Bitmaps.

- Discovered and help fix a crash involving ZINTER of SET and ZSET
- Removed redundant checks when using small integers (slight performance improvement)
- Some fixes to usage of C string formatter
- Suggested a change to the implementation of sds to be more space efficient at the cost of some complexity (rejected)

Lapce – *Contributor* | View Contributions

Open source. Quick from launch to every keystroke, and batteries included. Compatible alternative to Microsoft's VSCode

- Implement some UI features like collapsing panels and search panel preview
- Fixed some memory leaks with scratch documents
- Show unique paths to disambiguate multiple files with the same name
- Fix bad initialization of mouse pointers in the about modal