Vikram Alagh

Github: https://github.com/sixthkrum | Work Github: https://github.com/vikrama-ac

Trading View Scripts Account: (stock market charting platform with a bespoke scripting language - Pine Script) https://www.tradingview.com/u/sharaaU7/#published-scripts

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Education

2018 - 2022: BE Computer Engineering at Thapar University (Patiala), CGPA: 8.40 with Data Science as an elective focus.

Personal Projects

 $\underline{\text{https://github.com/sixthkrum/yarce}}: A \text{ CHIP-8 } (\underline{\text{https://en.wikipedia.org/wiki/CHIP-8}}) \text{ emulator, written in Ruby})$

https://github.com/sixthkrum/yalg : A tool to create touchpad gestures using libinput, written in Python

https://github.com/sixthkrum/xdo-joystick-lib: A tool to map joystick events to keyboard events using xdotool, written in C++

Currently working on a project to track stock market prices using a plugin based architecture with Go and Java.

Professional Experience

July 2024 - December 2024: Senior Software Engineer - Backend at Advantage Club

July 2022 - July 2024: Software Engineer - Backend at Advantage Club

January 2022 - July 2022: Intern - Backend at Advantage Club

Projects worked on at Advantage Club (used Ruby for everything unless specified otherwise):

- Led a team of 3 engineers for creating a sales contest module. Did cross functional coordination with product and strategy. Designed APIs for data exchange. Single-handedly designed and built the backend of a no-code framework for end-user supplied expressions. Features: expression input as a list of JSON objects, type and syntax checking, support for parallel computation of unrelated AST nodes and ability to use multiple types of input expressions with the same core framework.
- Single-handedly worked on the first ever semi-automated packaging of a sales contest module using Docker. Setup and ported parts of a Rails 6.2, Ruby 2.7 project into a Rails 7.2, Ruby 3.3 project in the process. Used Github Actions to semi automate the process and an SOLite embedded database to setup an image with test data for local testing.
- Suggested, designed and implemented with a junior developer the movement of scheduled mailing tasks from a low visibility Rufus Scheduler based system to a Sidekiq based system with high visibility and good error reporting. Reduced incident response time and number of incidents while increasing resources used minimally.
- Single-handedly designed and built a domain-specific no-code framework for a rewards and recognition product's nomination module. Broke down the flow into manageable parts and gave developers the provision to be able to define the behaviour of the part through a JSON based configuration using whitelisted pre-defined methods. Reduced the testing and development cost for new nomination flows (most of our clients have flows that are composable from parts of the flows of other clients, everything is still logically separated tenant wise)
- Single-handedly designed and built a no-code framework for certificate generator (through a JSON configuration) with support for dynamic text placement, automatic multiline placement, dynamic style (including different styles in same line) and multiple alignments, dynamic resizing using ImageMagick (without pango or HTML. Developers had to input pixel coordinates and font properties (which the framework used to place the text), I did so to allow for better control). Greatly reduced developer effort required for making responsive HTML certificates.
- Single-handedly designed and implemented a Slack integration for our rewards and recognition product. Interactive forms and pages with per-client customisations and mirroring of posts.
- Single-handedly designed and implemented a platform agnostic chatbot framework with pre-defined decision trees based on user input and used it for a Whatsapp integration of our rewards and recognition product.
- Implemented a Blender script using Python for automated generation of gifs depicting virtual award reception with dynamic models.
- Reported and mitigated various security-related issues on an ad-hoc basis, along with RCAs and fixes of various VAPT related issues.
- Created dev tools to help increase the productivity of the team:
 - string regex across git repositories and branches (to search for possible vulnerabilities etc.)
 - automatic Github pull request creator for urgent patches
 - simple dummy data creator
 - fast automated (updated from manual) compression of frontend-related artifacts during deployment with cache busting using GNU parallel

Technical Skills

Languages: Ruby, Python, C++, Go, Java and Pine Script

Frameworks: Ruby on Rails, Sidekiq and Flask

Databases: Redis, MySQL and SQLite3

Miscellaneous: Git, Docker, AWS CodePipeline, AWS Elastic Beanstalk, GitHub Actions, New Relic and proficient Linux user (Comfortable with Debian and Ubuntu. Familiar with Amazon Linux 2 and Fedora)

Achievements Et Cetera

- Received the Rising Star trophy from the CEO of the company
- Received the Well Done virtual award from the CEO of the company