Faizaan Datoo

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Education

Cornell University *Ithaca, NY*

B.S. in Computer Science • GPA: 3.25 *Aug 2019 - May 2023*

Relevant coursework: Object Oriented Programming and Data Structures, Functional Programming, Discrete Structures

Work Experience

Umoja Outreach Foundation *Remote*

Full Stack Developer *Jan 2020; May 2020 - Aug 2020*

- Pioneered a cross-platform mobile app using Flutter, which provides powerful career, networking, and mentorship tools to hundreds of users across 53 communities.
- Created a centralized system for sending emails and push notifications to users depending on their subscription preferences, from an administrative panel which was built in React. This vastly improved the ability for marketing to notify potential clients about Umoja's programs.
- Designed and implemented a unified user profile system using Firebase Authentication and ExpressJS. Allows clients to use one account to access all services on both the website and app, adding a layer of familiarity that drove adoption of the mobile app upon launch.
- Leveraged the business logic component pattern and ReactiveX-Dart library to build reactive mobile interfaces while limiting database transactions within budget range.

247Labs *Remote*

Backend Developer *May 2019 - Sep 2019*

- Designed and implemented a performant data dashboard, which employs Laravel task queues and WebSockets to make calculations and update values in the background without interrupting the user's flow.
- Implemented and refactored features in existing PHP codebases according to my team's specifications, using RESTful API guidelines and object oriented principles like inheritance to maximize extensibility for future maintainers.
- Gained familiarity with the Agile development process by planning sprints with project managers via Jira and implementing feedback given during weekly team meetings.

Cornell Mars Rover *Ithaca, NY*

Software Subteam Member *Oct 2019 - Present*

- Member of the team which builds the controls software for a semi-autonomous rover that competes in the annual University Rover Challenge.
- Added a command to the command-line interface that allows the user to directly query the status of individual ROS modules, which previously required them to search through log output to see if a module failed to enable.
- Further expanded the CLI with a command to toggle the networking configuration on both the basestation and remotely on the rover via SSH. Achieved this using Python and Jinja templates to update all configuration files with the corresponding IP address and ports for the chosen network configuration, and mirror the same process on the rover.

Projects

MCP Project *Java*

github.com/PrisonTeam/Prison *Jun 2014 - Jan 2019*

- Led an open source project that develops an all-in-one solution for adding the popular "prison" game mode to Minecraft servers. Gained hundreds of users and over a dozen contributors from around the world.
- Designed an abstraction layer to make the plugin platform-independent, such that it runs on various server software and game versions with one codebase.
- Collaborated with contributors to design and lead large-scale refactors while maintaining backwards compatibility across three major versions over its six-year history.
- Resolved disputes between collaborators and made final decisions on reviewing and merging new pull requests to ensure that the project stayed consistent with its established goals and philosophy.

uGames *Angular, ExpressJS, PHP*

github.com/faizaand/ugames *Jun 2019 - Jul 2019*

- Volunteered to create a progressive web app for the uGames soccer tournament, to deliver live match scoring and game schedules to hundreds of concurrent users during the event.
- Built an accompanying administrative panel for field marshals to update scores using a web interface, which facilitated live score reporting.

Skills

Languages Java, JavaScript, Dart, PHP, TypeScript, Python, OCaml
Frameworks Flutter, Angular, React, Redux, ExpressJS, Laravel
Tools Git, MySQL, MongoDB, Firebase, CircleCI, Jira, Postman