
Skills

Technologies Python, Go, Javascript, Mysql, Redis, ElasticSearch
Celery, Sqs, Django

Academic Qualifications

- Masters in Computer Science 2010 - 2012
University of Southern California
 - Bachelor of Engineering in Computer Science 2006 - 2010
B.N.M Institute of Technology (Visvesvaraya Technological University)
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Experience

Plivo Communications (Software Development Engineer 2) March 2019 - Present

[Go, Python, Flask, Redis, Celery, AWS, ECS, Terraform]

- Architecture, design and development of microservices for the voice team.
- Responsible for porting features specific to the voice team's functionalities out of a monolith codebase (python, django) into a new service developed using Go:
 - Design and development of the service with goals of maintainability and performance improvements.
 - Worked on unit testing, load testing, productionisation and monitoring of service, integration with existing services and API testing.
 - Integration of dynamic project configuration and package management tools
 - Used Aws SQS for asynchronous functionalities, AWS lambda to re-process failed tasks
 - Dockerization, setting up infrastructure on AWS through terraform on an existing ecs cluster, task definitions, triggers for autoscaling.
- Tuned the transport level parameters to include connection pooling, request retries and timeout based on the use case, which helped improve performance.
- Contributing to the rewrite of an existing microservice that hosts customer facing APIs, to improve maintainability and better resource utilization.

Software Development Engineer (Independent Consultant) Sep 2018 - Dec 2018

[Python, Django]

- Developed features for a product that aims to automate the hiring process, schedules interview stages, provides information for an interviewer like candidate's scores at each stage and candidate details.

Offers Portal and Promotions: The portal consists of a listing section for discounted entities from various data sources (ElasticSearch, MySql database) and support for dynamic product filtering, across the data sources

- Developed the search facility on the offers section of the website that combined results from ElasticSearch and Solr.
- Wrote schedulers to maintain data consistency across data sources (since products and promotions had frequent and concurrent updates), and contributed to performance improvements by optimizing database queries and caching data to reduce the load on the database.
- Involved in the design and development of the promotions feature, a configurable rule based engine that allowed users of the site to avail discounts based on combinations of products selected
- Development of the front end web pages using JavaScript & Integrating standalone HTML files with django's template engine.

Banner Ads: Contributed to the development and maintenance of the module that rendered banner images across the site - Grouping, managing and displaying banners based on type of page on the site/marketing campaigns in the system

Customer Modules:

- Led the development efforts for the feature that allowed members to sign up for an exclusive membership with a minimum fee and avail promotions, vouchers and delivery benefits. Worked on the core logic and design, integration with key components across the website
- User Shopping Lists: Developed an sku based shopping list and an editor-like shopping list. The editor like widget was integrated with ElasticSearch to retrieve and display products in the shopping list

Orders and Payments:

- Designed and developed the backend to handle orders with issues by tagging them and issuing reimbursements for failed orders, tagging future orders as critical for delivery
- Contributed to the integration of a new payment method during checkout. Developed a server to server callback for the payment gateway provider to fetch failed payments.
- CSR orders: Developed the schema, frontend web pages and backend APIs. Allowed members to donate grocery products incase of calamities, integration with payment gateway and member wallet on the site. A scheduled job to consolidate orders, place a bulk order and transition it through different stages.

Internal tools:

- Scheduled Reports: Developed the backend APIs and django admin interface. The reports were generated and emailed based on user defined configurations like date, time and type of report.
- Development of tools used across various internal teams like excel and csv parsing, csv export for routine tasks.

Mobile website/Front end website revamp: Contributed to the backend development and integration of responsive mobile web pages across the site

Internship

The Equities Group (Software Development Intern)

May 2011 - August 2011

[Php, Mysql, Html/css, Javascript]

- XML data was obtained from different financial news providers for equities.com, transferred via FTP
 - Developed scripts to parse the XML data and store it in various tables in the database.
 - Developed the front end pages to display the data determined by the end users search criteria
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Academic Projects (University of Southern California)

Spatial Database Application [Java, Oracle (spatial database capabilities)]

Developed a tram tracking application that provided real time information to students

Android Student Application:

Developed a student friendly mobile application that allows a student to search for housing, jobs and events around the university campus.

Distributed Library System [UNIX socket programming, C]:

Simulation of a distributed library system consisting of users, libraries and a central database, allowing communication between these entities using TCP and UDP sockets.

Call center system [Java, C2SADEL]

Designed the architecture of a call center customer care using c2sadel, an architecture description language, which yielded support for concurrent components and distributed applications
