Chakradar Raju

chakradarraju@gmail.com   Ph: +91 6380022565   Website

Experience

Software Engineer - Wingman (Sep'18-Now)

- Built and maintain parts of bot that joins meeting (puppeteer), record and stream audio (gRPC) to transcription and triggering system.
- Built online transcription using google and battlecard triggering system for wingman in python.
- Post call processing was done using bash scripts, I converted that into Kaldi (C++) pipeline that processes audio stream live to separate different speakers, and identify known users.
- Built a chrome extension to stream call happening in browser to be processed real-time by a python server through a proxy server written in node.
- Built node socket server that wingman app connects to for delivering instant battlecards during call, and call start/end messages, instead of polling.
- Built a complete admin webapp using React, Material UI in frontend, and express, node in backend. Deployed backend in kubernetes and exposed with Ingress and deployed frontend in firebase.
- Improved mongo db performance by identifying unoptimized queries, and creating appropriate indices.
- Setup ElasticSearch and built search and dashboard metrics using it.
- Integration with CRMs like Salesforce, Pipedrive, Hubspot, Leadsquared, and with Ringcentral Dialer. (OAuth, REST API, Java)
- Migrated processing queue from rabbitmq to google pubsub
- Wrote bunch of bash scripts to fix everyday dev painpoints around kubernetes, docker, reprocessing calls.
- Other minor projects around: google calendar syncing, twilio js sdk, webrtcvad

Software Engineer - Google (May'13 - Oct'17)
- RefX worry metrics pipeline (**C++**)
  - Worry metrics pipeline does preliminary analysis of all data that goes into Google's Knowledge Graph, and generates worry value, that is used to prevent suspicious data changes from being automatically pushed.
  - I own this project completely, I designed and built the pipeline. I also managed monitoring, deployment, and integration with remaining KG evaluation system for the pipeline.
  - I also mentored an intern for improving worry report.
- Experimental overlay in Waldref (**C++**)
  - Waldref is latest annotation service built using Google search's serving infrastructure, Muppet.
  - I prototyped and evaluated the effect of new representation which supports overlay of experimental annotation information in Waldref.
- RefX Data Experiments (**C++, Javascript, polymer**)
  - RefX Data Experiments controller provides RPC interface for internal teams ingesting data into Knowledge Graph to build RefX model, which is Google's the text annotation model, and evaluate the effect on the model.
  - I improved integration with our triggering system Jarvis, improved our frontend to provide more details in the experiment runs, built better integration of retries, new stages for lateral experiment starting.
- Mapmaker v2 (**C++, Javascript, polymer**)
  - Mapmaker v2 was the latest version of mapmaker, which was under development when I was working in the project. It loads map data in client side and allows quick and easy editing from a browser.
  - I built polymer widgets for Google Mapmaker v2 for editing different attributes of roads and POIs.
  - I built shortcut manager, category index, client side reverse geocoding, mappers binding UI to underlying data.
  - I setup mapmaker sandboxes for development and testing purpose.
  - I setup continuous custom gyp built and load test.
- Mapmaker v1 (**C++**)
  - Mapmaker v1 was the live version of mapmaker, when I was working in the project.
  - I migrated user preferences data to a more secure storage, without disruption to live service, and updated our backends to use proper credentials to access the data.
  - I improved internal admin tool to help debugging secured data. (**Go**)

- I built custom address widgets for Indonesia, Thailand, Ireland and Taiwan.
- I built webdriver tests to catch UI breakages. (**Java**)
- Birthday notifier (**Python**)
  - I built and setup a system, as a 20% project, that queries Googlers db and publishes card in internal home page of team-mates on their birthday.
- Got awarded peer bonuses multiple times for going beyond requirement to help others, some snippets:
  - "Thank you Chakra for helping out outside of working hours early in morning on a Sunday to resolve a outage", "top 5 viral map winners!", "Chakradar did a remarkable job of interviewing 4 candidates in a day", "Chakradar took initiative and added Google wide birthday cards", "Thank you Chakra for all your help, enthusiasm and persistence."

Software Engineer - DirectI (Jun'12 - May'13)
- Talk.to application allows users to have multiple chat accounts (FB, Google) in one application. I worked on improving error reporting and improving roaster performance of Talk.to client (**Javascript**)

Software Engineer Intern - Interviewstreet (Dec'11 - Jan'12)
- I extended existing online judge at InterviewStreet, which was verifying solution with static text, to accept solutions by custom validator and completed support for coding game challenge. (**PHP**)

Education

B. Tech (Electronics & Communication Engineering), National Institute of Technology, Trichy, 2012

Significant projects in college:
- I was active participant in many competitive programming communities and contests in college, reached upto top 20 in Topcoder India ranklist, ranked 14th in ACM ICPC Asia regionals'12 conducted in Amrithapuri. Also set problems for ByteCode'12, which was appreciated by "ACRush" and "tourist".
- I made significant contributions to [Pragyan CMS](), which runs most of our college's websites. (**PHP, Javascript**)
- I built [Dalal Street](), with a team of 2 other juniors from my college. It is a online Stock Market simulation game for Pragyan'12. (**PHP, Javascript**)

Personal projects

Ysed ([Github]()) ([Npm]())
　　Built and published an npm package that helps in templatizing kubernetes config.

Facebook birthday responder ([Github]()) ([App]())
　　This is broken right now, due to FB API change, I built it to respond to 100s of wall posts on a birthday, and later published it for others to use, it was used by 100s of people while it was active. (**Javascript**)

Game console simulator ([Github]()) ([App]())
　　Nostalgic brick game console simulator, (**Javascript, HTML5 Canvas**)

Collection of random projects ([Link]())

Other interests

I love [riding motorbikes]().

I love travelling, I've been to [19 different countries]().

[I love]() [to do]() [anything that]() [gives me]() [a shot of]() [adrenaline]().

I enjoy solving puzzles. Programming competition profiles: [Topcoder]() [SPOJ]() [Codeforces]() [Codechef](). I can solve megaminx, pyraminx, mirror cube, 4x4x4, 3x3x3, 2x2x2 cube. [Here is a old video of me solving rubix cube]().

I love discussing politics, philosophy, technology. [See blog]()