

Contact

Dev Aggarwal

+91 8764022384

devxpy@gmail.com

Kota, Rajasthan

Summary

- Interested in almost everything related to computers.
- Been programming for the last ~5 years.
- Highly driven to do things the "right" way.
- I love building abstractions and sharing them with the world.
- Over ~30 projects on Github, with ~800 stars in total.
- Have built software that's currently rolled out to nearly 20,000 users.

Experience

Present

Technical founder @ Dara.network

- [Dara](#) is ad-free, institution-first alternative to Slack, WhatsApp and LinkedIn.
- To build Dara, we've used flutter as our choice of frontend framework - it allows us to iterate faster, write modular code that runs on the Web, iOS and Android.
- For the backend, we use the Django web framework. It serves the APIs for our apps, and the dara.network frontend.
- The real-time features are powered by a node server running uWebsocket.js
- We've worked hard to build a horizontally scalable deployment that can scale with our ambitions.

2020

Fintech startup

- During the pandemic, I had been playing around with the stock market.
- Built algorithms that achieve ~100% returns over 1 month in backtesting.
- Reverse engineered WebSocket and http APIs of brokers to get access to expensive data and build a completely automated trading bot. (See [suchak](#))
- Optimized Python code using Cython and Numba to run algorithms at the speed of C.
- Currently catching up on AI, with Andrej Karpathy's Stanford CS231 course to put RNNs to use in algo trading.

2016 - Present

Github projects

An active [Github author](#)

Here are some selected projects:

- [ampy](#) - Adafruit MicroPython Tool - Utility to interact with micropython boards.
- [Flutter PDF viewer](#) - PDF viewing library for flutter.
- [ZProc](#) - Experimental multi-tasking framework for Python'
- [Flutter App for MNIST](#)
- [Oscilloscope](#) - oscilloscope for matplotlib (python)
- [Network File](#) - p2p File sharing library for dart.
- [Flutter rx BLE](#) - Bluetooth library for flutter.

2015 - Present

Un-documented projects

- Mood controlled, iot radio, built on raspberry pi.
- Music-playing glove, built using IMU as a motion sensor ([YouTube](#)).
- CNC Lathe, built using Linux CNC.
- Walkie talkie built on raspberry pi and aws

2018 - 2019

Freelance developer at Jaaga Labs, Bangalore, Karnataka

- Developed the [meghshala](#) app. ([Letter of Acknowledgement](#))
 - Meghshala is an NGO that helps teachers in rural and government schools teach better via a content delivery platform.
 - I wrote their entire flutter app from scratch, down to the [PDF viewer](#).
 - Setup AWS services, viz. DynamoDB, Cognito, AppSync
 - Also wrote a [p2p library](#), to help users in remote areas save on precious bandwidth, by sharing teaching content over local WiFi, in a near transparent fashion.
 - Here's a nice visualization of the user usage recorded by app.
- Developed the [Joovy](#) app.
 - Wrote their entire flutter app from scratch, down to the [Bluetooth library](#).
 - Setup AWS services, viz. DynamoDB, Cognito, AppSync
 - Helped extensively test it on the ESP32 micro-controller based companion device.
- Built a modular app architecture for [IoT Ready](#).
 - IoT ready wanted composable app "modules", which can be used to inject a specific piece of functionality into any flutter app they would build in the future.
 - To make this work, I rewrote the then, monolithic app into 4 modules -

- i. Authentication via AWS cognito
 - ii. Pub/Sub messaging for controlling hardware via AWS IoT
 - iii. Configuring WiFi access point on the hardware device via [Gecko OS](#) HTTP APIs
 - iv. Searching and connecting to the hardware device from the app.
- o The modules were then combined to create a functional app for ANS Technologies. This was a companion app for a smart door.

2018

GEA Hackathon'18

Won [2nd Prize](#), by building a chatbot and django backend, for a service expert appointment booking system, on the telegram bot platform.

2017

Lead Developer at Make Academy, Kota, Rajasthan

- Make academy focused on a SAAS platform for students taking standardized tests. It allowed them to take mock tests
- The app was written in django, used vanilla HTML/CSS/JS for the web GUI.
- It was a multi-tenant server, meaning that multiple coaching institutes could operate their own, personal test-taking platform, from the same django server, deployed on a single cloud VM instance.
- The django admin was also highly customized to better fit the needs of the teachers, who used it to design and publish exams for their students.
- Unfortunately, this venture has been shut down now.

Skills

Name	Proficiency
Python	85
Dart/Flutter	80
Networking	60
Deep Learning	10
Javascript	50
Micropython	70
Django	80

Android/iOS	40
Algorithms/Computer Science	65
IoT (Raspberry Pi/Espressif)	70
Scientific Python (numpy/scipy/pandas/cython/numba)	60
Rust	10

Education

2017 - 2021

Bachelor of Computer Science And Engineering
Sir MVIT, Bangalore, Karnataka - 562157

2015 - 2017

DAV Public School, Kota, Rajasthan - 324005

2006 - 2015

Saint Paul's Sr. Sec. School Mala Road, Kota, Rajasthan - 324002