

Ask HN: What are the things that you have automated in your personal life?

837 points by spacesarebetter 2 days ago | hide | past | web | favorite | 696 comments

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marcol1n0 19 hours ago [-]

My mum did run a B&B, in Italy, on the sea.

Me and my sister do live in different cities. She was quite old, but did not want any help from strangers. She did refuse to use a computer keyboard, since she hated informatization, and her sight was short.

So I did automate a system for her to scan the guests documents, detect the data required by local police for registration via OCR, fill up the form to send those data, and update the web site availability database table. The computer, when powered up, did only show instructions in big text, high contrast instructions, which where repeated by TTS (essentially "please feed the documents in the scanner", "please remove the documents from the scanner").

At the end she got used to using it, and she was quite proud being able to be so independent, since the last days of her lovely life.

[reply](#)

driverdan 17 hours ago [-]

> detect the data required by local police for registration

What data do the local police require?

[reply](#)

jklein11 11 hours ago [-]

It is typical to need to give a place of residence when entering a country (even if you are on a travel visa.) Immigration departments will reach out to these places of residence if they are concerned of someone overstaying their visa. The B&B or hotel will show them the copy of the Visa stamped in the passport and their check in and check out time they are in the clear.

Specifically in the case of Italy it seems like it is to be compliant with long standing legislation called TULPS.[1]

1.<https://www.quora.com/Are-hotels-in-Italy-required-to-take-a...>

[reply](#)

CloudNetworking 10 hours ago [-]

Some countries require to report names and IDs of all guests staying. All of them, not just foreigners.

[reply](#)

xingped 13 hours ago [-]

Hotels/hostels/B&Bs I believe are generally required to have the passport of foreign guests scanned or logged. This has been true of almost every country I've traveled to. Dunno why. Maybe they need the ID of local guests too? No idea.

[reply](#)

ocdtrekkie 18 hours ago [-]

I think people underestimate the power of IoT and automation to make independent living possible much longer. I recently installed the basics of my home automation system at my grandma's. Her keeping her thermostat set reasonably was an issue, and I've got the smoke detector on the system as well.

One of the things I'd like to add is the ability to detect natural gas: She doesn't have a lot of gas appliances, but she has no sense of smell, so the usual warning sign for natural gas she'd never notice.

[reply](#)

cdiamand 17 hours ago [-]

I had some fun wiring one of these up for my apartment to check air quality. Relatively inexpensive, although calibration is an issue, and I'm not sure I'd trust it in an emergency.

<https://www.adafruit.com/product/3199>

[reply](#)

snaveen 15 hours ago [-]

Cool, would the source code for this available in github? Thanks

[reply](#)

ocdtrekkie 13 hours ago [-]

Personally my preference is towards consumer products where possible, because they require less effort and look more presentable... Especially when its for a non-technical user. For instance, the smoke detector is a First Alert. It appears First Alert does have a natural gas detector, but it doesn't appear they make it with support for their Onelink protocol.

[reply](#)

halite 16 hours ago [-]

This made my eyes wet.

[reply](#)

maushu 18 hours ago [-]

That is brilliant. Did it take much maintenance?

[reply](#)

marcol1n0 18 hours ago [-]

It did never took any maintenance, apart from a password change for the police site... I am quite proud of this project, it's one of the most successful of mine... :-)

[reply](#)

desaiguaddu 18 hours ago [-]

Hello Marco,

That's a great way of using accessibility tools & automation.

To solve this pain point - one of our friend has created PlusGuests.

<http://plusquests.com/>

[reply](#)

desaiguaddu 18 hours ago [-]

My apologies for not reading your message entirely. May her soul rest in peace.

[reply](#)

Operyl 18 hours ago [-]

Uh .. if I read the comment correctly, Marco's relative has passed away.

[reply](#)

desaiguddu 18 hours ago [-]

Really sorry, I didn't read the message entirely.

[reply](#)

DoubleGlazing 1 day ago [-]

I have semi-automated cooking for the week ahead.

We recently started cooking meals for the week ahead on Sundays and then freezing them. The aim was to give us more time with the kids and to cut down on housework.

To save time on the Sunday cooking session I have cobbled together a very clunky, and I mean VERY clunky semi-automated cooking system. It comprises a Raspberry PI which controls a couple of WiFi mains switches attached to the induction hob and the slow cooker. A wooden spoon attached to a 360 degree servo motor hangs above the pot on the hob and can be activated by the Pi for stirring. Initially I tried to use one of those cheap three-legged novelty vibrating pot stirrers, but that didn't work out. Thermocouples feed back to the Pi to help control cooking.

The whole thing is controlled by a messy Python script and 'recipes' are JSON based text files. They just define how long each device should stay on, a max temp to turn them off and how often they should be stirred. I get an email when cooking is done.

I plan to add some functionality over the summer to tip in ingredients as needed. The biggest issue is that it doesn't handle chunky food, it works for soups, chili sauce, pasta sauce etc. I'd love to figure out a way to fry and separate mince as you would with a spatula..

[reply](#)

elvisds 1 day ago [-]

A friend is getting such a system to production for Indian recipes with Mechanical Chef [1] The demo looks incredibly cool [2]

[1] <http://www.mechanicalchef.com/>

[2] <https://www.youtube.com/watch?v=IBB0ZaN1paE>

[reply](#)

DoubleGlazing 1 day ago [-]

That's impressive, really impressive.

My system looks like it was put together by a drunk person. That is somewhat true.

[reply](#)

golergka 21 hours ago [-]

> My system looks like it was put together by a drunk person. That is somewhat true.

This made want to see it even more.

[reply](#)

vijucat 16 hours ago [-]

A bit off-topic: Not only is this incredibly impressive, it's a great white noise video, IMHO. Can listen to the robot cook do it's thing for a loong time. The Capsicum Sabzi video has a good amount of unintended ASMR, too:

<https://www.youtube.com/watch?v=Z0kf17jxeSY>

[reply](#)

aws_Is 1 day ago [-]

Your friend is a genius! Any idea, how much is it going to cost? And will they

plan to sell it in India?

[reply](#)

navinsylvester 18 hours ago [-]

It costs around 25k INR which would be around 370 dollars. Here is the source - <https://www.thebetterindia.com/147371/bengaluru-mechanical-c....>.

[reply](#)

easytiger 1 day ago [-]

Whilst an impressively ambitious amateur electronics project, this is clearly not productisable and won't work for a whole ton of reasons. A reduced scope project or device however might be.

[reply](#)

mosselman 1 day ago [-]

Building a clunky device that imitates human actions is hardly 'genius'. Resourceful maybe. An electrical coffee grinder isn't a normal coffee grinder with some rotating lever attached to it. An electrical coffee grinder has small motors attached to the grinder mechanism in order to make it move. This contraption is fun to build I am sure, but not 'genius'.

Much closer to genius is the thermomix: <https://thermomix.com/>

[reply](#)

fipple 1 day ago [-]

I've been served Thermomix food and it was extremely unimpressive. I don't know how easy it was to make though, since I didn't participate in the cooking. I can just say that if it's any harder than microwaving it's probably not worth it.

[reply](#)

vr46 19 hours ago [-]

Our Thermomix is in use everyday, and we love it, but it's not a device for the clueless or careless. Thermomix food is like any other food, the quality is entirely down to the recipe and person cooking it.

[reply](#)

exodust 22 hours ago [-]

Here in Australia, Thermomix was recently ordered to pay \$4.6 million in penalties for knowingly keeping safety issues relating to one of their appliances secret.

A malfunctioning lid caused hot liquid to escape from the bowl, giving several consumers severe burns. The Court found that Thermomix knew of this risk but still continued to promote and supply the faulty product.

Beware of genius inventions, you may get burned.

[reply](#)

RankingMember 18 hours ago [-]

Sounds like the Cornballer
http://arresteddevelopment.wikia.com/wiki/The_Cornballer

[reply](#)

err4nt 13 hours ago [-]

I have a lot of questions about how it might work, but above all else I'm absolutely in awe of what MechanicalChef can already do! Truly amazing automation, and I can see how this could directly benefit...nearly everyone. I

wish your friend success with this (and many delicious meals too)

[reply](#)

scarejunba 1 day ago [-]

I'm not able to seek on the video he has embedded (using Chrome on Android here). I'd probably have looked for more than 10 s if I could have.

[reply](#)

a_rahmanshah 1 day ago [-]

Here you go - <https://www.youtube.com/watch?v=ZPooW6tqQts>

[reply](#)

scarejunba 1 day ago [-]

Thank you.

[reply](#)

sushid 1 day ago [-]

That sounds amazingly complex and cool at the same time. Have you looked into sous vide machines or pressure cookers? Those two are the items I use the most to get precisely cooked meals done in batches.

I've found that a lot of meals done via the slow cooker tend to taste the same because of the consistency and the type of ingredients typically involved in them.

[reply](#)

ska 17 hours ago [-]

Absolutely, pretty much anything I could think of doing in a slow cooker would be better off done in a pressure cooker, for about the same time investment from me.

Sous-vide much more specialized, but I find super useful not for saving time, per say, but being more flexible about it. It's great when you are doing other things at the same time as cooking dinner, i.e. - leave the steaks another 30 min while I do this chore? no problem....

[reply](#)

ghaff 1 day ago [-]

The problem with slow cookers is that the chop a bunch of stuff up, toss them in the slow cooker, and turn it on approach doesn't work all that well. You generally want to brown things etc.--and then you're not gaining that much. But, then, I'm mostly not a huge fan of stews in general.

[reply](#)

noxToken 19 hours ago [-]

I think there are three problems with most slow cooker recipes.

1.) My hi/low setting probably doesn't match your hi/low setting. From the get go, we're cooking the same meal at two different temperatures.

2.) A lot of recipes seem to call for low setting for 8 hours. This works well for a lot of people with a standard American work day, since a stew/soup will stay above safe warming temperature in a nearly sealed pot. However, the cook times are too long. Thawed chicken for 8 hours on low almost never turns out with the right texture. In this case, it's convenience > taste.

3.) The flavor is cooked out of the ingredients, and/or there isn't enough seasoning or too many ingredients. When you get the seasoning right, too long of a cook time can dull the flavor. When there isn't enough seasoning, then your meal is bland from the start. When there are too many herbs and spices, you get a mish-mash of flavors that are all competing for attention. There was an article on here a long while ago that categorized foods into low and high

amplitude flavors. Something sharply distinctive was high amplitude (think nacho cheese Doritos), while a low amplitude food had weak, hard to discern flavors (plain grits). Too many different ingredients can lead to low amplitude foods, and when I see an ingredient list with 15 different herbs and spices, I almost always steer clear.

[reply](#)

ghaff 19 hours ago [-]

Rozanne Gold made something of a career out of cookbooks using short, simple ingredient lists and mostly easy prep. I don't care as much any longer as I mostly work from home, but my work night preference--as opposed to slow cookers--has always tended toward the fast, easy saute. Especially with so many pre-prepped vegetables etc. in the grocery store these days, it seems like the best option for my tastes.

[reply](#)

noxToken 12 hours ago [-]

I'm a huge fan of simple meals that don't involve a crock pot. There are so many variations on stir fry, that you can eat a distinctly different tasting meal every day of the week. You can even combine the two to help with meal prepping.

Brown a flank steak in a pan. We're not sealing in juices - we're making a crust. Throw it in the slow cooker for a few hours. Check to make sure it's tender. Prep some veggies by cutting and portioning them in containers. Find a stew sauce that's simple. When you're ready to eat, saute your veggies in a little oil, and add a generous portion of sauce when your stir fry is near complete. Throw in the meat towards to end to heat. Serve over potatoes or rice or something simple.

[reply](#)

krrrh 1 day ago [-]

Not GP, but he was saying pressure cooker over slow cooker. I got an instant pot about 6 months ago and I probably use it as much as my stovetop now. Even if you're pressure cooking a stew (it makes Indian cooking actually achievable) you can brown the meat in the same pot.

While it does double as a slow cooker, I have never actually used that functionality.

[reply](#)

sjg007 18 hours ago [-]

Or a crock pot.

[reply](#)

Operyl 18 hours ago [-]

Crock pots and slow cookers are essentially the same, as far as I know. The only difference I can remember is that one is a metal bowl, and the other is a ceramic bowl.

[reply](#)

jajern 17 hours ago [-]

I've always thought Crock Pot was a brand. It's the Kleenex of slow cookers. I call my slow cooker a crock pot even though it's made by some Target brand.

[reply](#)

Operyl 17 hours ago [-]

Yep. They're effectively the same in the end.

[reply](#)

hangonhn 1 day ago [-]

Your tone sounds mildly apologetic but what you've cooked up (pun intended) is overflowing with pure hacker audacity and just mad nerdiness. You are a hero!

[reply](#)

emacsomancer 1 day ago [-]

You don't have this pushed to a repo somewhere, do you? It would be great to be able to see how you do some of this.

[reply](#)

hx2a 1 day ago [-]

I'd really like to see a YouTube demonstration & explanation. Seriously, if you can make a Raspberry Pi and Python code cook for you, you will be my hero.

[reply](#)

klekih 1 day ago [-]

And how much time did you spend automating those things? Is it worth? i.e Is the time spent on cooking minus time spent on automating a positive number?

[reply](#)

slg 1 day ago [-]

Your comment reminds me of my favorite Douglas Adams quote:

"I am rarely happier than when spending an entire day programming my computer to perform automatically a task that would otherwise take me a good ten seconds to do by hand."

Sometimes it simply isn't about net time saved.

[reply](#)

cstrat 1 day ago [-]

oh man that is hilarious. I am so on that wavelength :)

[reply](#)

copperx 10 hours ago [-]

Don't read his blog though, or you'll be tremendously disappointed.

[reply](#)

DoubleGlazing 1 day ago [-]

I spent the best of a weekend putting it together. I could have done it quicker, but my son was helping. It was his mainly his idea.

I don't really save much time. The real benefit is knowing that the food won't burn. Growing up my mother would make soups and stews, she'd leave them to simmer for 30 mins without checking. The food on the bottom of the pot would burn and make the whole thing taste nasty. I wanted to make a system that would prevent that, whereas my son just loves building robots and playing with motors.

It was as much a project for me and my son to mess around with as much as an actual kitchen time saver. But we have plans to develop it and just see where it goes.

[reply](#)

magduf 12 hours ago [-]

Sometimes it's not just the time saved over doing it by hand, which assumes that when you do it manually, you do it correctly. Automating things also removes potential for human error: when doing something by hand, you might screw up, which could cost you far more time (and materials). You should factor this into the "do I bother automating this?" decision.

[reply](#)

aws_ls 1 day ago [-]

(Not OP) I think, it is worth a lot, just for the fact, that if you are the lazy partner/spouse in the house. Then you can make things easier for the one that does the bulk of the chores.

[reply](#)

andrewstuart2 1 day ago [-]

One of these activities builds upon highly valuable skills and, when done, leaves more time to build upon said skills (or do anything else). The other does not.

[reply](#)

rorykoehler 1 day ago [-]

I just bought an electric slow cooker. I leave it on for 12-24 hours depending. Does the same job without the complexity.

[reply](#)

narrator 1 day ago [-]

I did this with the healthiest packaged food I could get on Amazon (quest makes pretty good stuff) and doing subscribe and save to get a 15% discount + 5% cash back on the Amazon visa card. It comes every month and I just eat all that.

[reply](#)

xor1 1 day ago [-]

Do you have any links to what you buy? I'd like to try some.

[reply](#)

wodenokoto 1 day ago [-]

Please do post pictures and videos. It sounds like a real life rube goldberg machine!

[reply](#)

King-Aaron 1 day ago [-]

> It sounds like a real life rube goldberg machine!

It has a very "Wallace and Gromit" sounding vibe to me!

[reply](#)

kbutler 1 day ago [-]

We're /inventing/, Grommie!

[reply](#)

sAbakumoff 19 hours ago [-]

I'm just wondering, how do you spend this time you saved by using this terribly sounding device?

[reply](#)

samatman 1 day ago [-]

I'd consider retrofitting a Kitchen-Aide or other stand mixer. The epicyclic rotation should give you pretty good dispersion.

[reply](#)

gricardo99 20 hours ago [-]

please add some photos or video of your system in action. It sounds super cool. Especially the "very clunky" nature of it would inspire people to take on pretty daunting projects like this and get a "MVP" up and running. Just your description is inspiring. Thank you.

[reply](#)

spieg 21 hours ago [-]

I want to try this when my wife goes back to work (Sunday meal prep, not the robots). Are you following any resources or just winging it? Ideally a single source that includes all the materials needed for the week and then recipes to make the dinners. Preferably with multiple weeks to rotate through.

[reply](#)

joeyjojo 22 hours ago [-]

Any chance you could share your recipes?

[reply](#)

mosselman 1 day ago [-]

You might find investing into a Thermomix a good idea:

<https://thermomix.com/>

[reply](#)

SmellyGeekBoy 19 hours ago [-]

I imagine the reason you're being downvoted is because you've posted this link multiple times without explaining your connection (if any) with this company. At the moment you look like a spammer.

[reply](#)

mosselman 19 hours ago [-]

Fair point. I don't have a connection. I just found it relevant in both branches of the discussion. In fact, I'd never buy one. But I would buy one before I started automating stirring food in pots.

[reply](#)

fredoliveira 19 hours ago [-]

Unrelated to GP, or to the company that makes those machines. But I do have one and it's pretty decent (but also loud on high speed settings). Saves us a bit of trouble here at home by automating some common things in cooking. Most of the time we use it for soups and batters.

[reply](#)

pimeys 1 day ago [-]

I've automated almost all of my diabetes management into a level I basically can look into graphs and decide the level I want my glucose to go.

For glucose monitoring I use Dexcom G5 sensors[0] and xDrip[1] open source monitoring application for Android.

Insulin delivery is handled by a Accu-Chek Spirit Combo[2] pump, that is one of the rare pumps with a Bluetooth connection. The entity deciding the basal rates and corrections is an open source Android app called AndroidAPS[3].

As an insulin I use the fastest available analog Fiasp from Novo Nordisk, that works 10-15 minutes after injection.

All of these combined together has dropped my A1c results from 7.5% to 5.5%, being 90% of the time between 4.0 mmol/l and 8.5 mmol/l, and having no severe hypoglycemias. Basically I got myself some more years to live without any complications and in general I feel much better when I can sleep my nights without worrying and can eat whatever I want whenever I want.

Oh, and a warning to everybody who tries this: Accu-Chek will not cover any damage, there is nobody taking any responsibility of the results from the treatment you get out of the software. For me this works much better than any other treatment, but for others it might be even dangerous.

[0] <https://www.dexcom.com/g5-mobile-cgm>

[1] <https://github.com/NightscoutFoundation/xDrip/>

[2] <https://www.accu-chek.com/insulin-pumps-integrated-systems/c...>

[3] <https://github.com/MilosKozak/AndroidAPS/>

[reply](#)

jrowley 1 day ago [-]

Wow this is incredibly impressive. This is so impressive. I love seeing someone take responsibility for their healthcare and being empowered to control it. This is great.

[reply](#)

pimeys 1 day ago [-]

Of course a big thanks goes to the European health insurance, who're willing to pay the expensive parts, and to my doctor, who pushes me to do research about my possibilities, having a circle of connections who've helped me out to build my own rig.

P.S. Today I built a new widget to my i3 setup, displaying the current glucose and the trend. <https://i.imgur.com/VnZ23vO.png>

[reply](#)

aloisamae 1 day ago [-]

My younger brother has type 1 diabetes and he really liked your setup! Do you happen to have written about it somewhere?

[reply](#)

pimeys 1 day ago [-]

Not yet, but I'm planning to. For him there's some good reading, starting with OpenAPS. AndroidAPS is implementing the research from OpenAPS and the site has lots of papers and documentation to read.

<https://openaps.org/>

AndroidAPS and OpenAPS do not work with all the same hardware, So you choose your rig based on your CGM and Pump model.

If I'd be him, I'd start by trying to get my hands into Dexcom G5 system or if he doesn't have a good insurance, the Freestyle Libre has some unofficial bluetooth readers available that work with Xdrip. First you get your continuous glucose monitoring working and then start thinking about automating the insulin delivery.

These projects started because we're not waiting. The organization behind is called Nightscout and their website has information how to build the needed hardware:

<http://www.nightscout.info/>

Now the pump manufacturers are seriously planning to bring closed loop systems like I have here to the market. The only model right now that has some of the features is Medtronic 670g, but in comparison, if you know what you're doing, building an open source rig will give you much more control and features than the commercial offerings. This might change in a couple of years though.

[reply](#)

liamzebedee 1 day ago [-]

A question from a fellow diabetic hacker - what prompted your switch to the faster acting insulin and how does it compare wrt basal rates? I became aware of it not too long ago, currently using Novorapid on my pump. Have brought it up once and the endocrinologists were apprehensive of switching.

Forgetting to bolus and accounting for the dawn phenoemenon are pretty challenging in a backpackers routine. :-)

[reply](#)

pimeys 1 day ago [-]

It's definitely much faster. I'll try everything new I get my hands into with diabetes and my treatment at the time was not that great, so it was pretty easy choice. First I did Fiasp when still with MDI and it's not that great to be honest. Even half a unit can be too much and it's very hard to dose if you don't use a proper bolus calculator.

Of course using it in pump is a different story, especially if you have a CGM with the pump. Right now I'm using the SMB algorithm in AAPS, that can help with unannounced meals by giving small boluses if it thinks you ate something. The same mechanism pretty much evens out my dawn phenomenon.

One thing you should know before trying Fiasp is the molecule size is much larger and might cause stinging feeling when the pump gives you dosage. Try to get a pump that goes slow with the dosing, otherwise the first couple of months might be a bit unpleasant. You'll get used to it though and I don't really notice it anymore.

[reply](#)

terrie_coach-me 12 hours ago [-]

This is fantastic. In a reply, you mentioned that you were interested in writing more about your setup and findings. I would love to pay you for a full article from you on this for Better Humans. See our "Write for Us" page here with instructions on submitting a proposal, or drop me a note via email - I'm terrie at coach.me. <https://betterhumans.coach.me/write-for-better-humans-4c6c98...> I have been looking for someone with experience monitoring and using their blood sugar data to manage diabetes, so I hope to hear from you!

[reply](#)

anderspitman 1 day ago [-]

For those interested in personal T1D data management, Tidepool[0] is a fantastic (and open source) nonprofit in this space.

[0] <https://tidepool.org>

[reply](#)

pimeys 22 hours ago [-]

The problem with this software is that you don't get uploads automatically. I use Nightscout and InfluxDB with Grafana, and just set xDrip and AAPS to upload every new value automatically. Now I can have a browser tab open showing the glucose graph and medication and see changes happening real time.

[reply](#)

liamzebedee 23 hours ago [-]

Can also vouch. Their uploaded is super fantastic and works with many types of meters/pumps. Data stored their is also openly accessible using their API. Chris (the founder) seems like a good guy.

[reply](#)

catamorphismic 22 hours ago [-]

The Dexcom G5 website says you should recalibrate with a meter every 12 hours to ensure accurate readings. Do you really have to recalibrate that often?

[reply](#)

pimeys 20 hours ago [-]

Not really, but you should really know how the calibrations work and understand when they might be off. It takes time to learn and understanding the basic math behind doesn't hurt.

Always calibrate when you are not sure.

G6 promises a no-calibration mode, but has a hard stop for sensors after 10 days. With G5 and calibrations you can double or triple the sensor lifetime (with xDrip).

[reply](#)

Herodotus38 1 day ago [-]

Assuming you are type I, I found this paper today which you might find interesting.

<https://www.nature.com/articles/s41541-018-0062-8>

My little sister is type I and using the BCG vaccine in this way blows my mind.

[reply](#)

toomuchtodo 1 day ago [-]

Have you seen the recent development of using two TB BCG vaccine doses as a protocol for Type 1 diabetes?

<https://www.nature.com/articles/s41541-018-0062-8>

[reply](#)

radiKal07 1 day ago [-]

Hey man, look into the keto diet.

[reply](#)

robbiep 23 hours ago [-]

That is radically dangerous advice, do you have any qualifications in this matter or are you just trying to kill someone?

[reply](#)

tugberkk 21 hours ago [-]

No it is not. He just stated that he/she "look into it".

[reply](#)

mjaniczek 23 hours ago [-]

For type 1 diabetes? Really?

[reply](#)

pimeys 22 hours ago [-]

I've been doing research about keto diet and tried it out a couple of times. I think it's not worth it, food being more expensive and so on. I'm in a good shape, eating normal food and sometimes stuff like pizza. My glucose is excellent, I'm in a very tight control now with the current system. It's much nicer this way than I need to worry about every time I go to a restaurant (in Berlin) what kind of food they serve.

[reply](#)

anonymous5133 1 day ago [-]

I have a robot lawn mower that is wire guided. Instead of the traditional lawn mowers that basically cut the grass in all directions (making a sloppy cut pattern) my mower knows how to cut in straight lines so you get a traditional cut pattern. It also has the ability to dump the grass cuttings into a composting bin.

Basically, I put down wire guide cable into the lawn and into the cement as well. It is all powered by electricity and has a little docking station. When it is scheduled to cut it

simply rolls out, goes to the lawn and starts cutting on. After a pre-determined point, it will go back to the compost bin to dump the grass cuttings before going back to cut the lawn again. After it is done with all the cuts it simply returns back to the charging station.

I am trying to add better features to it like weather detection. If rain is scheduled then it will cut the lawn early and then delay cutting it again until the lawn is dry. I am also working on adding an edger component and a weed wacker competent so it can handle those tasks as well. Pretty much, my goal is to have a fully automated robot lawn mower when I am done with this project. So far it only cuts the grass and dumps the waste. I think this wire guided method is far superior to the autonomous robot mowers because most people's yards are in static arrangements that rarely change. So it is better to just add in the wire permanently so you get a perfect cut every time.

[reply](#)

INTPenis 1 day ago [-]

Just a slight warning if you live in an area of occasional thunderstorms. A friend of a friend here in southern sweden was left with a nasty burn along the length of a robotic lawnmower wire he had buried in the lawn when lightning struck and jumped from a tree to this wire.

That was only one wire that I forget the purpose of, perhaps as electronic barrier. I can't imagine the mayhem of a grid of wires being struck with the same misfortune.

[reply](#)

Numberwang 22 hours ago [-]

My fathers automower got destroyed when a moose decided to stomp it. Also in southern Sweden.

[reply](#)

atmoz 14 hours ago [-]

Reminds me of a similar incident in Norway, caught on tape:
<https://www.youtube.com/watch?v=Ho8o92Ro-Ig>

Some CS students even made a game based on the hilarious video, where you play as the moose and must eat apples while defending against incoming lawnmowers: <https://joelspeanuts.itch.io/elgspillet>

[reply](#)

INTPenis 11 hours ago [-]

Moose are huge and scary. I've heard more stories about smaller animals like badgers attacking the lawnmowers. Or at least making noises at the lawnmowers whenever it approached the lawn boundary where they were hiding.

[reply](#)

Numberwang 12 hours ago [-]

Wow, that is probably exactly what happened. Funnily enough it looks very much like my parents place.

[reply](#)

dolessdrugs 19 hours ago [-]

Southern Sweden is a dangerous place for automowers.

[reply](#)

dhumph 1 day ago [-]

Do you have any information that would allow some to build something similar? Would love to see the setup!

[reply](#)

Deinos 1 day ago [-]

I would also love to see a blog post on this!

[reply](#)

amingilani 1 day ago [-]

I'd love a tutorial!

[reply](#)

lgregg 1 day ago [-]

I second this request.

[reply](#)

twblalock 1 day ago [-]

Has it ever chopped up a squirrel, or the neighbor's cat?

[reply](#)

roel_v 1 day ago [-]

(not OP, have regular robo mower) Animals are no problem, they get out of the way themselves. Children leaving toys out (or socks), or branches that have been blown off trees, or chestnuts - those make for some scary noises.

[reply](#)

keyle 1 day ago [-]

I'm no expert, but Cats and Squirrels would be pretty good at hearing and seeing danger, even feeling vibrations nearby. I doubt they'd get caught by a lawn mower at walking speed.

[reply](#)

sokoloff 20 hours ago [-]

I've mowed (personally and as a summer job when younger) for almost 40 years. Animals of all sorts seem to avoid the mower when already running.

As a kid, I gave our family cat a close scalping. It was late fall and we were picking up leaves with the mower. After a lunch break, I fired up the mower and the cat shot out from underneath making an awful noise and headed for the woods.

We assumed she was fatally injured until two/three days later when she came walking back up the sidewalk, sporting a close shave on one part of her head, but otherwise seeming uninjured. She got plenty of her favorite food that day!

[reply](#)

brokenmachine 1 day ago [+1]

jsd1982 1 day ago [-]

Did you modify an existing mower? What make/model was it and what modifications did you make to it?

[reply](#)

JoblessWonder 15 hours ago [-]

Have you run into issues with compaction due to always mowing in exactly the same lines? I ran into that issue so now I have two different patterns I use (for the record: I am not a wire guided lawn mower.)

[reply](#)

SnowingXIV 18 hours ago [-]

Please do a writeup on this! One of the reasons I've been dragging my feet on home ownership is I'm not a fan of lawn mowing. Now if only you could also automate shoveling/snowblowing.

[reply](#)

sjg007 18 hours ago [-]

You can! Just hire a teenager or landscaper. :) Otherwise get a ride along mower that you can put a plow on in the winter. Pretty simple. Also depending on your car you can put a plow on it too.

[reply](#)

onychomys 17 hours ago [-]

I've priced heated driveways (I live in Minnesota), because I also hate snowblowing. It looks like in order to replace my current normal driveway with a heated one, it'd be about \$30k-\$40k. I can put up with a lot of cold days pushing the snowblower for that price. :(

[reply](#)

cweagans 14 hours ago [-]

Husqvarna has a pretty excellent roomba-for-your-yard system. 100% autonomous. It's somewhat expensive, but if that's the only thing that's holding up a home purchase for you, it might be worth at least looking at. Alternatively, you can probably whip something up with some kind of frankenstein assembly of an electric wheelchair base, an electric lawnmower, a Raspberry Pi, and a camera.

<https://www.husqvarna.com/us/products/robotic-lawn-mowers/>

[reply](#)

gkfasdfasdf 17 hours ago [-]

You could try <https://lawnguru.co>. My lawn was mowed within 20 minutes of signing up.

[reply](#)

avoutthere 20 hours ago [-]

Have you documented the build process? If not, can you tell us more about the parts you used and the online resources you consulted?

[reply](#)

ramshorns 1 day ago [-]

Does the wire ever get in your way or trip you when you're walking around the lawn?

[reply](#)

ioulia 1 day ago [-]

I think it's beneath the lawn, buried in the ground.

[reply](#)

gormz 16 hours ago [-]

They rent a cable burying machine at home depot to do things like this and invisible fences for pets.

[reply](#)

snow_mac 1 day ago [-]

I want to buy one, or atleast the guide on how to build it!!!!!!!

[reply](#)

t0mek 2 days ago [-]

I used DSP to recognize the commercials in the radio broadcast on my stereo receiver and turn down the volume automatically ("adblock for the radio broadcast"). I described it here: <http://blog.rekawek.eu/2016/02/24/radio-adblock/>

[reply](#)

amelius 1 day ago [-]

> The commercial block starts and finishes with a jingle, so the potential software should recognize these specific sounds and turn off the volume between them.

I suppose that many stations don't have such markers though.

[reply](#)

t0mek 1 day ago [-]

Indeed. I see two options here.

First is to analyze the other signal features of the commercials (eg. increased volume), although it may be tricky.

The other option is a crowd-sourced solution - pretty much as for the browser adblock - where users can mark samples recognized as ads. Since the publishers often buy campaigns for many stations in the same country or state, it may be a shared database.

On the other hand, the described project only scratches my own itch. I wouldn't try to productise an app that takes away the main source of income for the radio stations.

[reply](#)

tga 1 day ago [-]

How about a third option, ads are by definition short and repeat a lot.

No fancy ML needed, after a couple of times the filter gets one of these repeating fragments it should be able to block it. Fairness bonus: you get to hear each new ad a couple of times.

[reply](#)

bochoh 1 day ago [-]

The problem you have here is that in order to continue listening to songs more than just a couple of times you'd have to be able to classify the song versus an ad. Otherwise once the system heard the song a few times it would start blocking it too.

[reply](#)

tga 1 day ago [-]

I expect most ads are <30s, most songs are >2m.

[reply](#)

randomdata 1 day ago [-]

That's not necessarily a bad thing. The decline in commercial music radio has been, in large part, because people quickly grow tired of hearing the same songs over and over again.

[reply](#)

taneq 22 hours ago [-]

Ads repeat several times an hour, songs very seldom repeat within an hour and even then usually only once. It should be possible (although not sure how practical) to just autocorrelate the current audio with audio over the past hour.

[reply](#)

oliv__ 1 day ago [-]

Just filter by length.

[reply](#)

masukomi 1 day ago [-]

it's radio. the length is infinite. there are pauses in music. there are pauses in speech. Also, he didn't mention anything about delayed listening. The implication was that it happens in real-time so you don't know how long it will be when you need to start dropping the levels.

[reply](#)

wink 19 hours ago [-]

It sounds easy, but often isn't.

Maybe radio spots are a little different because they're cheaper and usually more low-quality than TV ads, but it doesn't really work for TV ads - they often have small variations, e.g. 10sec identical, 5sec different, 10sec identical (easy example). Also depending on your method of analyzing the audio it's sometimes broadcast with an unhearable fingerprint that distorts the waveform (let's say like MP3 versus WAV, but worse).

So yes, you can find some patterns - but the commercial breaks are highly mixed up and you wouldn't believe how many distinct commercials per channel are there, even if you think you hear the same ones all the time :)

[reply](#)

Kadin 1 day ago [-]

Easier still... in the US, many radio stations transmit the artist and song title that's currently being played, via a low-bitrate subcarrier encoding. (The proper name is "Radio Data System", IIRC.)

There were previously some FM to MP3 "ripping" tools that would use the RDS information to tag the resulting recordings -- I'm not sure of the status of them. But it could provide a good way to detect commercials, since most radio stations change to a generic station identification message when they break for commercials / banter. (Whether you'd also want to turn down for banter is another question.)

[reply](#)

dest 1 day ago [-]

It certainly works for some stations, but not for many other (from personal experience in France), and it would be trivial for radios to change their RDS / metadata system to circumvent ad blocking.

[reply](#)

carlmr 1 day ago [-]

As long as it's only individuals doing this I don't see anybody reacting on a wide scale. Also there's no feedback of listener numbers depending on volume. So there's no way to detect people "adblocking" on radio, so there's no impact on revenue.

[reply](#)

amelius 1 day ago [-]

> I see two options here.

Yes, or perhaps a combination of techniques. E.g. shared database to train an ML system to detect ads. Of course, the downside is that the ad industry will then tweak the ads until they pass the ML test.

> I wouldn't try to productise an app that takes away the main source of income for the radio stations.

I wouldn't think of it as taking away a source of income, but rather as forcing them to find a source that doesn't bother their customers so much. Ad blockers seem to be getting more accepted.

[reply](#)

ambicapter 17 hours ago [-]

> Of course, the downside is that the ad industry will then tweak the ads until they pass the ML test.

Nothing like a little competition to motivate the improvement of ML systems :)

[reply](#)

dest 1 day ago [-]

Do you have an idea how could such a database of copyrighted material be shared? (Asking for a friend...)

[reply](#)

t0mek 1 day ago [-]

I think that it'd be enough to store some kind of fingerprints (eg. selected frequency components after performing the FFT), not the whole samples.

[reply](#)

dest 1 day ago [-]

Indeed it seems to be the best option.

[reply](#)

amelius 1 day ago [-]

Good point. Perhaps use only parts of the material (not the entire clips). This should be covered by "fair use".

And perhaps using the clips for other purposes than "viewing" may in fact be fair use. Especially since you are trying to find a method for *not* viewing them.

(IANAL)

[reply](#)

dest 1 day ago [-]

IANAL as well, but this notion of "fair use" seems slippery. I had a look in the French article that lists some exceptions that allow sharing copyrighted material, and did not find any obvious match with the potential shared database.

<https://www.legifrance.gouv.fr/affichCodeArticle.do?cidTexte...>

[reply](#)

amelius 1 day ago [-]

I was under the impression that for purposes of research, fair use is pretty broad. So perhaps you could explore that angle.

[reply](#)

rtkwe 16 hours ago [-]

Just apply a transform to them like FFT then it's not the original work anymore and it should be fine.

[reply](#)

dest 15 hours ago [-]

You know MP3 is kinda like a FFT right?

[reply](#)

rtkwe 13 hours ago [-]

Yeah, but if you lose enough info such that it doesn't play like the original or can't be reconstituted into the original it's still large enough of a change that it should steer clear from copyright issues. No one's really tested exactly where the distinction falls.

[reply](#)

dest 10 hours ago [-]

Agreed

[reply](#)

kirillseva 1 day ago [-]

Blockchain!

[reply](#)

bonestamp2 16 hours ago [-]

> analyze the other signal features of the commercials (eg. increased volume), although it may be tricky

My home theater receiver does this (Marantz). It works pretty well. It doesn't cancel out the TV commercials though, it just normalizes the volume so it matches the show. But, I assume you could make it work for muting too.

[reply](#)

criddell 19 hours ago [-]

> I wouldn't try to productise an app that takes away the main source of income for the radio stations.

Do you have similar objections to things like self-driving vehicle technology that will take away the main source of income for truck drivers?

[reply](#)

jdc 1 day ago [-]

I think you'd want to look for dynamic range compression among other things.

[reply](#)

dest 1 day ago [-]

Note this is not foolproof as e.g. pop songs are already heavily compressed.

[reply](#)

VMG 21 hours ago [-]

At least in Germany, they all have. Also you could almost time it, since commercials start ~5mins before the full hour (where the news comes on).

I've often toyed with the same idea of the parent poster

[reply](#)

scraft 21 hours ago [-]

I wonder, if you accepted a little delay, say 20 seconds, could you use

Shazam to identify what song is currently playing? I have been amazed at the range of music Shazam can identify, if you could do regularly queries and separately listen out for gaps in music, it seems plausible to be able to identify when a non-song (from Shazam's perspective) is playing.

[reply](#)

dest 1 day ago [-]

Great work! I have been working for a while on a similar adblock, but that does not need jingles to detect ads. I'm on my way to open source it. A radio player with adblocking included is available at <https://www.adblockradio.com>

[reply](#)

MaxikCZ 1 day ago [-]

Would be great to have ability to add custom stations. Would it work too?

[reply](#)

dest 1 day ago [-]

I think so. Are you thinking about a station in particular?

Not promising anything, because each station requires time to tune and money for computational resources.

[reply](#)

askvictor 3 hours ago [-]

I would like something like this, but to cut out all non-music (i.e. talking, interviews, etc). Would tensorflow be able to be trained to detect just speech vs music? It would obviously fail if there is speech with background music, but that isn't too common outside of Jamaica (and reggae stations/shows)

[reply](#)

mikec3010 13 hours ago [-]

This Is great. I wanted to do something similar with a TV. Mic detects commercial signature and sends mute command via IR interface. I'm just an idea man though who never followed through.

[reply](#)

timmywiff 19 hours ago [-]

I once made a radio adblocker for streams hosted on <http://radioplayer.co.uk/> to be run in a terminal. There is also code to increase/decrease the volume on a Mac. It's not perfect but was a fun little project.

For some reason, the data and audio are out of sync but once calibrated it works quite well.

https://bitbucket.org/timwiffen89/radio_adblocker/src/master...

[reply](#)

sgroppino 1 day ago [-]

This for TV would be great!

[reply](#)

dest 1 day ago [-]

Check this:

<https://github.com/erikkaashoek/Comskip>

It seems the tuning of the algorithm is complex though. There's a dedicated forum for it: <http://www.kaashoek.com/comskip/viewforum.php?f=2&sid=effa4b...>

[reply](#)

burkemw3 1 day ago [-]

MythTV has commercial skip: https://www.mythtv.org/wiki/Commercial_detection

[reply](#)

spuz 2 days ago [-]

That is genius.

[reply](#)

minhazm423 1 day ago [-]

im getting an error

[reply](#)

t0mek 1 day ago [-]

Sorry, I had some DNS issues. It should be fine now.

[reply](#)

stevekemp 23 hours ago [-]

Obligatory plug:

I automated handling DNS updates via simple "git pushes" - Lets you revert from bad changes, and gives you a good history of changes over time - <https://dns-api.com/>

[reply](#)

avshyz 17 hours ago [-]

I'm 25, and single. I'm very social, and I work out regularly. But I find it hard to approach women in the street, and I've always detested loud pubs (My hearing is slightly impaired, which makes it hard for me to communicate in such a place). So I've decided to sign in to OKCupid. I've always heard the dating scene in this site is toxic, but I've had no idea. I've too many toxic and horrible things written plainly in some users profiles ("I date only men with cars, I find it important to date gentlemen", "If you're of middle eastern origin - don't even bother sending a message") and been verbally abused in personal messages ("It's funny you've thought you have a chance with me", or another who've said "The only chance you've got with me is if your penis is 15 inches in length"). I was told I need to walk it off and don't let it get under my skin. But I can't. I've thought about quitting more than once, but the alternative is a status quo I've grown to hate.

But I'm an engineer, so I've decided to automate my OKCupid experience.

Using node & puppeteer I've run a histogram, it showed that in my country, 75% of the profiles are almost completely empty (less than 10 words). I used to manually dislike these profiles (as they'll keep coming back in the search results until you dislike it), but now my script does it for me. The next thing I've done was to sort these profiles - I give higher priority to profiles that have a longer word count, that features keywords I prefer ("fascinating", "studying", "reading", are words that I catch my attention).

It used to be a very basic script, but every negative and toxic encounter has motivated me to keep it going. Right now I'm working on building a frontend to show the script's results. I'm planning on showing "suggested openers" based on the questions the potential match has said or mentioned and adding NLP features (such as sentiment analysis).

[reply](#)

kansi 17 hours ago [-]

That moment when you need to fix a product before you can get a date!

Anyways is it open source :D

[reply](#)

Kalium 14 hours ago [-]

Online dating systems aren't really optimized for much of anyone, sadly. They tend to be balanced between optimums for different user demos.

[reply](#)

Arete31415 9 hours ago [-]

Good for you!

FYI for all dating folks out there: women do not want you to approach them in the street. Like, let's say, 99.5% of the time.

[reply](#)

chobytes 9 hours ago [-]

This. I'm legitimately scared when random guys approach me, as I've had guys grope me, try to corner me, etc in past. Sadly, I feel like these are common experiences for women.

[reply](#)

wvenable 2 hours ago [-]

Yeah this reminds me of the Louis C.K. bit: "How do women still go out with guys, when you consider the fact that there is no greater threat to women than men? We're the number one threat! To women! Globally and historically, we're the number one cause of injury and mayhem to women. We're the worst thing that ever happens to them!"

"If you're a guy, imagine you could only date a half-bear-half-lion. 'Oh, I hope this one's nice! I hope he doesn't do what he's going to do.'"

Every woman I know has had one of those common experiences -- many times -- but honestly when I was younger man I really had no idea what women go through or the frequency of it. My wife has had more than few things happen to her over the years.

[reply](#)

jotux 8 hours ago [-]

Someone wrote a book about this: <https://www.amazon.com/Optimal-Cupid-Mastering-Hidden-OkCupi...>

[reply](#)

monksy 17 hours ago [-]

How has your experience been with their anti-scraping attempts?

[reply](#)

HamSession 15 hours ago [-]

Would be cool if you open sourced it, I would happily add my NLP expertise to it as I have the same issues.

[reply](#)

matt_the_bass 8 hours ago [-]

Good luck! I met my wife on that site.

[reply](#)

chobytes 15 hours ago [-]

This sounds like a giant red flag to me.

I hope you at least disclose your methods to people you contact.

[reply](#)

Ima21 13 hours ago [-]

What, why? It looks a reasonable solution for a missing 'filtering' feature :-)

[reply](#)

chobytes 9 hours ago [-]

They're treating people as objects to be measured and quantified. The sentiment analysis thing at the end sounds borderline sociopathic.

I would personally be terrified of anyone who thought this was an ethical or acceptable thing to do.

[reply](#)

keerthiko 8 hours ago [-]

OkCupid recently added filtering features to inbox, to filter away messages under X word count, or match % < N. I think this is just a more advanced version of that. I think the time spent on the top of the online dating funnel (browsing often-misleading profiles, reading their essays, and trying to start a conversation that either results in no response or an offensive dismissal) does not contribute to personal development OR enjoyment in any way, so why not minimize that time, so that a person can focus on the human interaction that comes after?

[reply](#)

ball_of_lint 8 hours ago [-]

What exactly is unethical about this? No one has the right to make him view their profile. If a few simple heuristics help him avoid clear mismatches and toxic conversations then he's doing nothing more unethical than any dating site that matches people up based on interests or personality.

[reply](#)

ghostbrainalpha 8 hours ago [-]

He prefers people who fill out their profiles, and like reading..... that's a bit of a jump to sociopath.

There are some bizarre and horrible things people do on dating sites. If you have had bad experiences, that's not ok. But don't prejudge this person without really understanding the effect his code is having.

[reply](#)

AlphaWeaver 20 hours ago [-]

A few years ago I used Trello to keep track of my tasks for the day in a Kanban board separated by date. I had a large backlog of tasks and then a "Due this Month" "Due this Week" "Due Tomorrow" and "Due Today" sections.

First I wrote code that automatically moved cards between the different sections, so I only ever had to look at the "Due Today" list.

Then I used Twilio to build a bot that gave me a wake up call every morning. I didn't like the TTS that Twilio used so I generated more realistic TTS via Amazon Polly and played it back. Polly has many different voices so I had seven different personas give me my task list for the day. After it read out what I had to do, it then began playing the latest BBC News update right over the phone.

The final phase of this project was a bot that called my girlfriend at the time, told her the weather, and then called me and conferenced us together so we could start our day saying hello to one another.

[reply](#)

justacat 18 hours ago [-]

I'm curious: How do you write code for Trello? I didn't realize there was an approach for this

[reply](#)

loa-in-backup 18 hours ago [-]

You might want to look at this: <https://trello.readme.io/docs/api-introduction>

[reply](#)

AlphaWeaver 18 hours ago [-]

Yeah, as mentioned, Trello's API is pretty expansive.

[reply](#)

IloveHN84 13 hours ago [-]

Also the data they share online due to security bugs

[reply](#)

ransom1538 1 day ago [-]

When I graduated college, the job situation wasn't as hot.

I would take a resume, custom tailor a cover letter, change out a few paragraphs in my resume to fit the specific job title --- and then.. no reply -. So. I scripted it. I would scan craigslist, monster, indeed, etc for emails or company names. The script eventually evolved to guess company homepages and scan for emails on 'career' sections.

Based on the job titles it would automatically change out cover letters. It became smart enough to understand that a word doc or txt format resume was required. It could catch "PUT THIS IN THE SUBJECT" and created a queue for hand verification -- otherwise, it would send out the emails. Once they were sent out it would scan incoming emails to determine if there were any leads - and matched the thread together with a unique email footer.

Hilariously, it flipped job searching. I would get long ranting emails why I wasn't a qualified or the position required someone more 'senior' to build CRUD webpages. OH well, HR blew their time, not mine, ---> delete. When a interested company did call, I had a nice mysql database of all the posts that company made and was ready to return a call prepared.

I got a job quickly after this php script starting running.

[reply](#)

hajrice 1 day ago [-]

It would probably never reach scale for obvious reasons, but someone should productize this.

"I'll get you a 20% more high paying job for \$1,000"

[reply](#)

siavosh 1 day ago [-]

I review resumes periodically for my job and it certainly feels like someone(s) already have.

[reply](#)

gitgud 1 day ago [-]

So you can tell which applications were built by software? I was always hesitant to attempt automating job applications

[reply](#)

dcc 22 hours ago [-]

Yes, you frequently can tell. There appears to be a number of people doing some form of automation with different degrees of success. Even though it's a clever use of software and when you're hiring for a software engineer it should be promising, it gets annoying and you tend to discard it. I wouldn't suggest attempting it unless you can do it extremely well if it's fully automated, or use it to help simplify the process, but still complete the last steps manually.

We've had a tendency now to introduce a request for a simple bit of information in the job posting as a sort of captcha to filter out automated spamming of applications.

[reply](#)

koboll 1 day ago [-]

You could definitely make money selling access to this.

[reply](#)

snow_mac 1 day ago [-]

Can I buy access to this?

[reply](#)

nottorp 2 days ago [-]

Funny enough, possibly because I work on embedded software for automating random processes, and also from home, I don't feel the need to automate anything not work related.

When you spend most of your day stuck in front of a monitor, it feels good to get up and turn lights on/off.

[reply](#)

naturalgradient 2 days ago [-]

Me too, at work (PhD student) I take enormous pleasure in writing end to end fully automated pipelines. Nothing that needs to be done more than once isn't automated pretty much. At home, I would never buy or use an Alexa/Google assistant/use Siri or any 'smart' device, I simply don't want to bother with it.

[reply](#)

eric24234 1 day ago [-]

Exactly. Anything that needs even very minimal human interaction like pressing a "y" key is not automated at all. It is very common to see in the corporate environment that scripts need some editing in b/w to be done during its running with editor which can be easily automated using sed.

[reply](#)

naturalgradient 1 day ago [-]

An interesting effect I have noted for me when doing research is that even if it only takes one extra click or changing one parameter to generate a plot, or run some extra analysis, I will only do it selectively and start rationalising it to myself that I know when a certain plot or analysis will help and when it won't.

This becomes especially egregious over month to year long experiments where I run the same experiment every day on end.

There was really no reason not to auto generate every possible plot, every possible analysis every time (and I cannot use ipython notebooks or things like that because it's many distributed things chained together with lots of scheduling).

The productivity gains have been enormous and are hard to overstate. I don't dread any experiment any more because even in a large complicated distributed setup, everything from initialising kerberos tickets to tons of config files, restarting services, running multiple experiments dependent on each other, and generating plots and summaries and committing them to a repo is one command. Anything that's analysed once is evaluated always.

I now almost look forward to setting up new experiments because of the pleasure I get from just chaining together calls from my control utilities.

All I have to do is pull on my laptop and I download a filter with all results pre-generated paper ready. I think a lot of people do this in

experiments where everything is on a single machine, but I haven't seen it as excessive from other phd students doing complicated distributed stuff. There is always a lot of manual command line args passing, manually changing some config while instead of just creating dedicated scripts, etc.

[reply](#)

smu 23 hours ago [-]

And as an added bonus, your experiments are more reproducible. Kudos!

[reply](#)

stinos 2 days ago [-]

Same here. Only part of my work involves automation etc but indeed for some reason that took away the need/desire to automate more at home. Likewise when setting up the electricity in our house I specifically selected something based on teleruptors only without any programming/smart stuff. Just works, still some versatility since it's wired in a star, and I also just happen to like hardware switches and buttons vs touch screens.

[reply](#)

dancek 2 days ago [-]

I can relate to this. I would like some remote control features though but then I always consider what a hacker could do and what's the worst that could happen if the system malfunctions.

Quite often the worst-case scenario is a fire, so the little benefit is IMHO not worth the risk.

I'm talking about self-made hacks and cheap Chinese hardware here.

[reply](#)

dghughes 1 day ago [-]

Or false positives that desensitize you. Cry wolf too many times and people tune out.

I got my parents a Nest smoke alarm (I can see the alarms too) but a year later it was being triggered by steam.

The folks at Nest actually sent a free new model that's better at not triggering for steam. But I have to wonder if my elderly parents trust it anymore.

[reply](#)

avip 2 days ago [-]

So this. I've consciously refused to install irrigation so I'll have to go out to the garden and hang around there.

[reply](#)

bonniemuffin 1 day ago [-]

I've often commented that I'm glad I have to water the garden because it's an excuse to just stand around looking at plants.

I don't like watering grass because grass is boring and requires a ton of water, so rather than install irrigation, I ripped out all the grass and planted more interesting plants. (Drought-tolerant xeriscaping is common in my area, so this isn't unusual.)

[reply](#)

enneff 1 day ago [-]

> just stand around looking at plants.

Hard to overstate how good this is for one's mental health.

[reply](#)

TomVDB 1 day ago [-]

When we bought a house with a pool, I did not keep the existing pool maintenance guy who'd come in every week for \$100/month, and neither did I install a better pool vacuum robot.

I love the 30min when I come home after work where I scoop leaves and various kinds of debris out of the water. Very relaxing.

[reply](#)

0xfeba 19 hours ago [-]

Hm, I had a pool once. Never again -- I felt like that's all I did was clean it, vacuum it, add chlorine tabs and clean the DE filter and destroy my lungs.

I also don't really like plants, or the outdoors. I'd much rather be inside in the A/C. Working on my own coding projects doesn't bother me, even after coding all day long.

Perhaps it's because I've been spending less time coding at work and more time managing...

[reply](#)

bonniemuffin 16 hours ago [-]

I'm pretty sure the part of my eye that processes tall green things and wide blue things is wired directly into the happy spot in my brain.

[reply](#)

reitanqild 1 day ago [-]

> so rather than install irrigation, I ripped out all the grass and planted more interesting plants.

Nice. A lot of local plants too?

[reply](#)

bonniemuffin 16 hours ago [-]

I don't think most of them are truly native to the area, but they're mostly cuttings of abuse-tolerant species that were growing well at friends' and neighbors' houses in the area.

[reply](#)

nojvek 1 day ago [-]

When the dog used to wake me up in the middle of the night to drink water and take him out, I had to do to it manually. Now it's all automated, my body just does it. 90% of brain is asleep.

I look forward to automating diaper changes when the baby arrives. The subconscious brain is an incredible piece of technology.

[reply](#)

coryfklein 15 hours ago [-]

The automated diaper changes are real. Once you can do it all in darkness (or near darkness) your hands just learn all the movements and you get it done so quickly you are back in bed and asleep very soon. Sleep still gets disrupted to some degree (you can't drop straight back into interrupted REM), but much less than you'd think.

[reply](#)

notoriousjpg 3 hours ago [-]

I've always wondered if there is an opportunity for bidets for babies to reduce the mess of changing a diaper. Thoughts?

[reply](#)

sleet 1 day ago [-]

Seems like an odd solution. Can't you just leave a bowl of water out? Does your dog have bladder control issues?

[reply](#)

laumars 1 day ago [-]

Bowl plus dog flap would be my approach. But my back garden is safe to leave a dog unattended (high fences and set deep in a quiet residential surrounded by farm land).

[reply](#)

albertgoeswoof 1 day ago [-]

How old is your dog? After 5-6 months they should not need to go out in the night. Either you need to train them not to or take them the vet to check if they have bladder problems

[reply](#)

downrightmike 15 hours ago [-]

Some dogs just like to go out and be outside. My dog likes to go out and just stand in the middle of the yard for an hour at 2am. Her mom is the same way.

[reply](#)

mig4ng 1 day ago [-]

How did you manage to do that? Is there a book or an article that you recommend reading?

[reply](#)

0xfeba 19 hours ago [-]

It's called "Sleep Deprivation".

[reply](#)

haskellandchill 1 day ago [-]

Yes! I call it natural computation ha

[reply](#)

YaxelPerez 1 day ago [-]

I used Tasker to make my phone vibrate in Morse code. Now I don't have to take it out of my pocket to read a notification.

[reply](#)

jscholes 1 day ago [-]

> Now I don't have to take it out of my pocket to read a notification.

Definitely going to look into this. I'm a blind screen reader user and, when I had a phone with physical buttons, I could have it in my pocket connected to an external braille device or pair of headphones. I could easily carry on conversations, browse the web, ask for help, all sorts of things without taking it out of my pocket, and nobody had to know I was doing anything.

With a touchscreen phone I can't really do any of that. Even if I can listen to notifications in an earphone with the phone in my pocket, I can't take care of them unless I take the phone out. Plus, wearing earphones and walking around in public when you can't see isn't wise.

[reply](#)

fao_ 9 hours ago [-]

If you have an android device you might be able to slave a keyboard and an earphone to it and use it that way? I don't know how feasible that is

though!!

[reply](#)

marketgod 1 day ago [-]

The AirPods might be a temporary help if you have iOS. You can plug them into your ear when needed and send a command. Probably not the most ideal but Siri seems to be getting better.

[reply](#)

YaxelPerez 1 day ago [-]

Here's the code + instructions: <https://yaxelperez.github.io/hacks/>

[reply](#)

ryanjshaw 1 day ago [-]

You led me down a rabbit hole, as I was trying to understand your 'wpm' variable... In case anybody else is interested, he's using 12wpm apparently based on formula [1], which isn't enough for a Radiotelegraph Operator License but still impressive to me :)

[1] [https://en.wikipedia.org/wiki/Morse_code#Speed_in_words_per ...](https://en.wikipedia.org/wiki/Morse_code#Speed_in_words_per_...)

[reply](#)

entropie 1 day ago [-]

Script responds with 404.

I was looking if this would be a nice addition for my smartwatch.

[reply](#)

YaxelPerez 1 day ago [-]

Should be fixed now. Thanks.

[reply](#)

13of40 1 day ago [-]

You should make it so you can reply by bouncing your leg up and down. (Then go have an Edward Thorp weekend in Vegas of course.)

[reply](#)

martin-adams 20 hours ago [-]

Or tap the phone while it's in the pocket

[reply](#)

lloeki 23 hours ago [-]

That'd be even better on a smartwatch... and come to think of it, Morse code might very well be the quickest method of text entry on a smartwatch...

[reply](#)

freehunter 10 hours ago [-]

I've looked into this in the past (on an embedded device, not a smartwatch) and back then was convinced that it was a more difficult idea than I wanted to spend time on. Morse code is made for humans to write and humans to listen to, so it's often sloppy and difficult to parse in an automated fashion. Everyone writes a bit differently, at different speeds, and everyone has a different definition of how long a dash and a dot should be.

It's possible for sure, but like OCR there's a lot of variability in it. Just like parsing handwriting is full of edge cases, parsing morse code is as well.

[reply](#)

yjftsjtbsd-h 1 day ago [-]

That's great! Could you be convinced to share the code for it?

[reply](#)

rkachowski 1 day ago [-]

This is genius. I've been wanting to do some kind of mobile app with morse code functionality to scratch a nerdy itch, and this seems like an awesome project idea

[reply](#)

arduinomancer 1 day ago [-]

Does that affect battery life by much?

[reply](#)

YaxelPerez 1 day ago [-]

Haven't noticed a sizable difference on my phone.

[reply](#)

adyavanapalli 1 day ago [-]

That is so cool!

[reply](#)

rajacombinator 1 day ago [-]

That's really cool, but from an actual life utility perspective isn't it draining of mental bandwidth to always have this communication channel open? I could see this being useful for some Jack Bauer type activities but otherwise I want to give notifs less access to me, not more. Again - very cool, not trying to detract.

[reply](#)

BrandoElFollito 1 day ago [-]

Oh yes please share the code

[reply](#)

vajeneteHais 1 day ago [-]

We (with the wife) automated menu for the week and the shopping list. A database store all recipes (ingredients, time taken...) and the menu composer chose semi-randomly* into the list.

* : Menu composer takes into account :

- in season vegetables,
- number of reutilisation of the ingredient,
- number of reutilisation of the meal,
- expiration of the ingredients (vegetables can expire rather quickly)
- various parameters (if it is a busy week or not, number of days you want to cook...)

It's really a relief. No need to decide what to cook after work : it's already decided, and you know you have the right ingredients. Time spend for the shopping is very small.

I want to be able to plug that into an online shopping website, but as always, websites don't display there API so i'm trying to hack into it... (and people still talk about API economy...)

[reply](#)

0xfeba 18 hours ago [-]

> It's really a relief. No need to decide what to cook after work : it's already decided, and you know you have the right ingredients. Time spend for the shopping is very small.

Nice. I'm using Google Keep for now, and there's probably a much better solution already -- but what I really want is a way to organize my shopping list the way the grocery store is organized so I can zip through it.

Ideally, this would require some collaboration with the store to get the exact layout. But a generic (vegetables first, breads 2nd, canned goods 3rd, ..., milk & dairy last. would also help tremendously.

[reply](#)

danieka 1 day ago [-]

This is really fascinating :)

I'd love to use the same system. Is it open source?

[reply](#)

failedartifact 19 hours ago [-]

I love this idea, and had also thought of similar automation. I think with nutritional values data, you could get a great system going.

I'll be happy to start an open source project with a few peeps if their interested as well?

Catch me on github <https://github.com/Alfanhui>

[reply](#)

lorki 1 day ago [-]

+1 Would also like to know the inner workings, a general hint to the approach taken would already be awesome

[reply](#)

vajenetehais 19 hours ago [-]

i got a sql database :

Recipes table : it tooks some months to fill it with our choices (preferred recipes) and add attributes to that : cold/warm meal, difficulty, time taken, kind of meal (junk, bistrot, classical, exotic...), does it scale (x0.5, x2, x4...).

ingredient_table : each recipe got ingredients. Every kind of ingredients are on a separate table.

product_table : it is there i display what you can buy from stores : 6/12/24 eggs bundle, 250/500g butter

Then it starts to be ugly, cause there is constraints : loose and hard. Timetable is a hard constraint (i don't want to cook monday evening), so it will be double ration one of the day before, Season is a hard constraint (you buy vegetables when they are in season) Tastes are a hard constraint : you decides what kind of meal you want to eat during the week

With that you get available recipes and a timetable for cooking and quantity to cook.

Price is a loose constraint, leftovers are a loose constraint, time spent cooking is a loose constraint (could be a hard, if you have enough recipes, but as i like cooking, it's no matter for me)

After, i enumerate all possibilities and each one get a score based on loose constraints : you can use a simple weighted average, exponentially weighted average... You tweak coefs to prefer a nice price or a little time spent and then it's done. Usually i chose randomly between the ten best solutions.

I got enough recipes to cover all hard constraints. I avoid lot of problems doing a big enumeration for all possibilities (it takes a couple of minutes at my scale for 200 recipes), also, hard constraints are pretty easy to deal with, it could be a lot more complicated if user become picky on meals. I'm no coder so i don't know any design pattern or anything that could help me to design a better algo. But, as far as i know, when you can't evaluate all possibilities you have to go the optimization road.

Answers to questions : - Yeah, there is this website : <https://fr-en.openfoodfacts.org/> (broken TLS it seems) that could be used to pull data on ingredients, - I don't have plan to open-source it : it's pretty hacky, ugly and probably defy any coding rule (except 4 space indent PEP8). it's not even packaged (i've never done that before...)

[reply](#)

mig4ng 16 hours ago [-]

+1 Please open source it, even if it is not ready for production

[reply](#)

sclangdon 1 day ago [-]

I've been wanting to do this for ages and link it with the USDA's nutritinal database but I just haven't had the time.

Is there any way to get hold of what you've done?

[reply](#)

krzat 21 hours ago [-]

Sounds very cool. It could also take local supermarket promotions into account.

[reply](#)

sgibat 18 hours ago [-]

people would buy this.

[reply](#)

foolano 1 day ago [-]

I bought an e-reader called reMarkable [0] that I use every day to read technical stuff on it.

At some point, I got tired of the process to sync files: download the document from the browser, open the reMarkable app and drag the file into it.

I automated this workflow, and now I can just "print" directly to the device [1] the article/document I'm reading.

[0] <https://remarkable.com/> [1] <https://github.com/juruen/rmapi/blob/master/docs/tutorial-pr...>

[reply](#)

bichiliad 1 day ago [-]

Off-topic: do you like your reMarkable? In particular, how's writing on it?

[reply](#)

foolano 1 day ago [-]

I love it. I use it heavily every day. The hardware is awesome, the software is not quite there yet but they keep shipping updates so I'm hopeful it'll get there at some point.

I do not write that often on it though. I usually solve math problems on it and also comment on PDF docs.

All in all, I'd buy it again :)

[reply](#)

bichiliad 1 day ago [-]

Thanks! It looks like a beautiful piece of hardware, and I'm glad it's living up to its intentions.

[reply](#)

Tepix 18 hours ago [-]

I plan to buy it whenever they release a new model with illumination.

[reply](#)

ACS_Solver 1 day ago [-]

I wonder if that's easy to adapt to Linux?

I get around the same issue by emailing files to the reMarkable [0] but that's a solution that relies on having your own email server and is therefore less user-

friendly than what you do, though it works great for my use case.

[0] <http://umanovskis.se/blog/post/remarkable-email/>

[reply](#)

foolano 1 day ago [-]

> I wonder if that's easy to adapt to Linux?

I believe using CUPS could be a simple way to implement it in Linux.

[reply](#)

johnchristopher 1 day ago [-]

I have a kobo and my intentions was to throw getpocket articles at it but I have hundreds of articles and the kobo barely manages it (and it's too slow, when it doesn't crash and needs a hard reset).

Is the remarkable better in that regard ?

[reply](#)

sdwisely 1 hour ago [-]

tried calibre (foss ebook management software with kobo support) and the pocket plugin? I believe it converts them to epub rather than using the built in Kobo pocket app.

[reply](#)

vishalsharma 1 day ago [-]

This is interesting but not available in India , any similar products you know as an Alternative for India?

[reply](#)

criddell 20 hours ago [-]

Sony sells something similar:

<https://www.sony.com/electronics/digital-paper-notepad>

[reply](#)

Bakary 21 hours ago [-]

The Onyx Boox Note may be available there. It's an android based equivalent. Has more features but a worse build quality.

[reply](#)

gitgud 1 day ago [-]

Remarkable is a Markdown viewer right? So basically you open a HTML webpage in remarkable? Is that so you can modify the source?

[reply](#)

Crespyl 16 hours ago [-]

There may be a markdown tool by that name, but in this case it's a specific brand of e-ink tablet that includes a stylus for drawing on the documents/note-taking/etc.

IIRC it supports PDF and presumably other ebook formats, but I wouldn't expect it to have any special tool for viewing markdown.

[reply](#)

gitgud 8 hours ago [-]

I see now, my mistake

[reply](#)

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