UAV Path Planner for Complex Environments

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I guess the idea is to provide a service that takes in a known 2-D environment (maybe 3-D if I have time), an observed point cloud (likely simulated for demo purposes), and a position of a ground-based UAV (again, simulated for demo purposes), then return a maneuverable path. The user should be able to decide which algorithm to use as well as any vehicle constraints.

I have *some* experience with path planning and robotics, so the challenge shouldn't be the path-planning bit but more so the getting it to work in a web-app, for I have very limited confidence in myself to develop web-apps.

I suppose I'll just use AWS for the computing power in finding paths. I may end up with a database for pre-loaded vehicle constraints and maps, so I'll likely just use MangoDB for that (been meaning to find a reason to learn it…). For the front-end, I'll likely just use something Python based for the speed of development – hopefully…

That's all I can think of right now - feels doable.

Shout out to Perplexity AI for justifying my idea of a path planning tool. Originally the idea was just something the user could play with, but this idea of a path planning service could be cool too, though I have no idea how a remote user would interface their UAV with my application, yet (unlikely to get that far…).