Company: Thumbtack
http://www.thumbtack.com/

Dear student of Facultad de Informática Universidad Politécnica de Madrid,

I am looking for software engineers with these basic capabilities below and beyond. We are looking for software engineers who can work remotely from Madrid. Our clients are US based.

If you feel you have understanding on the below and are interested, please contact me on: 647082971 or luke.mcgowan@gmail.com, in order to discuss further.

1) Coding ability is key. We want to see people fluently translating thoughts into code and writing that code quickly, cleanly and without duplication. This kind of fluency only comes from having spent a lot of time writing code and from constantly thinking about what approach leads to the best solution to any given coding problem.

2) Proficiency with algorithms

3) Proficiency with basic runtime analysis and with the runtime implications of various common data structures is also important.

Those are the only things absolutely required. For more senior candidates and for certain roles we might look for more developed expertise in some area, but for general SWE applicants there are no absolute requirements beyond the above. We don't hire only "frontend" or "backend" engineers, we're open to hiring any engineer with an interest in our product and we have plenty of work to be done in both areas but we encourage our engineers to practice and develop full-stack skills. A solid background in computer science is also helpful.

What kinds of (engineering) problems would I work on?
Its not just about making a great web product. We have to understand the behavior of this giant system and figure out how we can make a product that bring the two sides together better, to help improve the lives of both sides. That involves a lot of difficult product thinking and a lot of tricky data analysis.

We're effectively building two products -- the consumer facing side and the service professional facing side -- so there's always a long list of new product features that might improve the experience for one side or the other (or both!). There really aren't any good analogous products out there, so we're genuinely forging a new user experience (or, technically, two) which means a lot of creative thinking, risk-taking, and ambiguous challenges.

Some examples of past and future projects:

- Building an internal dashboard that brings together all the information about activity from consumers and service professionals and makes it easily accessed and visualized, so we can get an idea of how the whole business is changing in one place.

- Building a categorization engine to figure out what kind of service someone needs from a free-text query

- Revamping the pro messenger to be both a much better user experience and a much more maintainable and testable code base by moving to AngularJS

- Writing a shared system for configuring database fixtures to enable fast and realistic automated testing

- Standardizing front-end components and styles into a single infrastructure for faster UI making and product iteration

- Automating request verification and syndication (the process of matching requests to appropriate service pros) using a collaborate filtering algorithm

- Expanding our web frontend to run on multiple servers -- despite aggressive caching, hitting the scaling limits of a single frontend machine

- Writing a system to track huge amounts of fine-grained event data and a framework to run myriad A/B tests across all portions of the site using these events, and performing analyses on these data using Pandas or R

- Writing a transparent but secure passwordless login system for consumers to make our technology "get out of the way"

More ideas for talking about our engineering and product challenges
We work at a big scale. Relative to all our competitors, we work in a huge space. We work across the entire US, in almost every vertical imaginable. Our competitors pick off a few cities, or a a single vertical. And yet, we're crushing it everywhere. This is amazing. This also means that we have to be extra careful when rolling things out, because changes to our ecosystem affect a lot of people coming from many perspectives. This is a product design challenge but also a straightforward scaling challenge. In addition: we've been incredibly aggressive about caching and fast load times, which is how we serve nearly 150 requests/sec at peak load times with sub-100ms latency for most pages on only a handful of dedicated servers.

Data data data. By most standards, we have incredible amounts of data and analytics. We've run over 500 A/B tests. We've essentially built MixPanel in house (Prospect). Our team understands statistics. We are data-driven to an extreme degree relative to other startups. We use R and Pandas extensively. Good examples here are the LP title test, the insane conversions we get on LP/DM pages (based on tons of iterations of design and UX, mobile optimizations). We use machine learning for things like categorizing homepage queries (you likely can't really mention some of the other ways we use machine learning techniques, but explain the HP query problem and people really do get excited!).

Building invisible technology. This was mentioned at the tech talk and it really resonated with people. Rather than pawn off our product development efforts as uninteresting, we should acknowledge the truth that we have important product design challenges: connecting people together. To make this as easy as possible, we have to get out of the way so people can focus on connecting with each other. Our technology should be more and more invisible. Removing passwords for consumers is a great example of how we've gotten out of the way. Our endless A/B tests on various landing pages are also examples of how we get out of the way. Standard quotes are another great example -- rather than building a management interface for quote templates, we're reusing existing quotes and leveraging the existing quote flow as a "management" tool. We built Twitter Bootstrap in house (Primo). We are constantly paring down the features on the site, removing mental burden for our users so they can focus on the task at hand. We spend a lot of time interviewing our users, having them over for lunch,

getting out in the field to know them, etc. This is all nontrivial and makes us far better than our competition