My name is Jakub, I am an (ex)architect based in Berlin, and here is a little story explaining why I would like to become a full-stack web developer:

I have studied architecture and also worked as an architect. I´ve always seen architecture as a system of complex relationships and a constant negotiation between numerous participants. Finding an equilibrium within this system is an iterative process, in which multiple (the more the better) variations and scenarios need to be tested and evaluated. I´ve always found limitations very inspiring, considering them as one of the crucial drivers in the creative process. To be able to design in this way, the typical architectural software was not enough. I needed to extend the range of tools I was using – that was the moment when I learned about Grasshopper – a visual programming language and environment that runs within the Rhinoceros 3D computer-aided design (CAD) application. After this encounter, the architecture was never to be the same again. A whole new universe of possibilties has opened.

Rather than designing buildings, I could suddenly design generative algorithms that design buildings. The whole design process could be automated - numerous alternatives could be generated and simultaneously evaluated by applying further performance analysis (e.g. structural, solar). Later, I learned about genetic algorithms in which I could simulate evolution, I learned about feedback loops. I realised that design could be driven by data rather then by intuitive assumptions of the architect. I found this simply fascinating.

During my master studies, I became interested in design based on emergence. At this point, using Grasshopper wasn´t enough, since the algorithms required recursion and conditional statements. Even though there was a possibility to create loops within Grasshopper, it was not the most suitable tool, and in order to advance, I needed to learn to code. At that point I started to learn the basics of python – driven by the motivation to create my own components within Grasshopper.

In my master thesis I focused on urbanism. The main topic of this research was the liveability of Barcelona´s public spaces. The aim was to prove a hypothesis claiming that parameters defining the built environment (such as proportions, visibility, program distribution etc.) both directly and indirectly affect the behaviour of people inhabiting these structures, i.e. the potential of this environment to become liveable. Based on the results, a design method was proposed which by using an algorithm, collected the data from the research and applied them in generating new masterplan – allowing more liveable districts to emerge.

After finishing my thesis I started to work as an architect and there was no more time as well as no demand from my employers to play with coding, since there was more important technical knowledge to acquire, never taught at school. However, that curiosity was still there, and each time I was given a task which I could complete more quickly and efficiently when building an algorithm, I felt really excited. I noticed that the pleasure of designing algorithms that design buildings rather than designing the buildings themselves.

Many times I asked myself a question: what if my job would consist of coding only? At the very bottom of my heart I felt that if I could answer yes, I would be much happier than working as an architect. Nevertheless, I thought that I should have asked this question before choosing my major. I thought that without a degree in computer science a programming job wasn´t possible. But this unrest was still present, so I started to research driven by the thought: what if such possibility actually exists? That is how I learned about coding bootcamps, that is how I got to know Career Foundry. The main goal for the 2022 has become clear: To change my career from an architect to a full-stack web developer.