

Internship Interim Report

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Brief Introduction of the Company and internship position description

My internship was developing on ByteDance. ByteDance is a technology company operating a range of content platforms that inform, educate, entertain and inspire people across languages, cultures and geographies.

Dedicated to building global platforms of creation and interaction, ByteDance now has a portfolio of applications available in over 150 markets and 75 languages. It includes Toutiao, Helo, TikTok, Douyin, News Republic, Vigo Video, Huoshan, Xigua Video, TopBuzz, BuzzVideo and FaceU.

ByteDance's platforms aim to help users explore and discover the world's creativity, knowledge and moments that matter in everyday life, while empowering everyone to be a creator directly from their smartphones. We are committed to building a safe, healthy and positive online environment for all our users.

internship position description

As for the internship position, I picked up Front-end Web Developer as my first target. Let me quota the part of the requirements below:

前端开发实习生 — 抖音/火山

北京 | 研发 - 前端 | 实习

职位描述

- 1、参与抖音、火山产品web/Hybrid/React Native/小程序/Electron/多媒体，以及大型中后台前端开发；
- 2、负责高质量的设计和编码；
- 3、承担重点、难点的技术攻坚。

职位要求

- 1、统招本科及以上学历，2019年及以后毕业的学生；
- 2 计算机基础扎实，熟悉常见的数据结构、算法和设计模式；
- 3、理解并掌握Javascript语言核心技术DOM、BOM、Ajax、JSON等，对MVVM框架应用(如React/Vue等)有一定的经验；
- 4、有实习经验优先，有后端/移动端（安卓/iOS）开发经验优先；
- 5、具备良好的服务意识、责任心、较强的学习能力、优秀的团队沟通与协作能力。

投递

Team introduction: The R&D department of Mutual Entertainment is responsible for the research and development of various star products such as Douyin, Douyin Volcano, live broadcast, music, and video. As of January 2020, Douyin Daily Active (DAU) has exceeded 400 million and continues to maintain a high speed increase. Join us, you will support including but not limited to the research and development of the above products and related architecture work, each line of code can serve hundreds of millions of users.

1. Obtain a bachelor degree or above in the 2021 class, majoring in computer science, or have studied compulsory computer major courses;
2. Proficient in HTML, CSS, JS, familiar with page structure and layout, familiar with common technologies such as HTML5/CSS3;
3. Familiar with JavaScript, AJAX, DOM, jQuery and other technologies;
4. Familiar with NodeJS, proficient in using Grunt, Gulp, Webpack and other construction tools;
5. Have MVVM framework development experience, such as React, VueJS, AngularJS, etc.;
6. Have good communication and teamwork skills, love technology, have a strong sense of responsibility, and can promote the application of the technical framework.

Generally speaking, the position require candidate have the ability to construct and build large scale WEB applications. My department is TikTok Live Front-end, in where responsible for the webcast live function of TikTok App. The office is on Shenzhen Raffles City.

Detail of the interview

At the very first begin of my interview, I was inspecting my past experience and thinking my target offer. Because I have done web development in Shenzhen Big Data Institute, so I think it will be helpful if I choose Web Development as my target. As I have expected, I got many interviews from Alibaba, ByteDance and Tencent.

Talk about the detail of my interview. There are total 4 interviews (3 for professional and final one for HR). All these interviews are taken remotely by camera. At that time, I was doing an exchange program in UC Berkeley and the internship mainly taken place in night.

For the detail of the interview. Because I'm apply for a intern, so the interview mainly focuses on my past project and my academic paper and my programming skills. For each part of the interview, the interviewer will let me write code to solve a algorithm problem to check my programming ability. In addition, they will also ask me some questions about basic knowledge for university core coursework like Computer Network, Operating System. The interval between each interval is short and I finally pass the whole interview and get the offer in March 3th 2020.

I wrote a blog in nowcoder to record detail questions: https://www.nowcoder.com/discuss/372363?source_id=profile_create&channel=1009

Learned lessons

The interview for student is slightly different from social recruitment. For programmer, programming skills and interview experience are the most crucial requirement. For future interview, I will concentrate on programming skills and reflect myself from previous experience.

Expected or Not

This internship still taught me a lot, and also taught me the need to lower my expectations and do my job well. When I joined the real workplace, I found that my skills were not enough. I thought that as a front-end developer, I only need to develop my own pages. In actual work, I not only participated in the previous bug fixes, but also worked with colleagues to optimize page performance. This requires a lot of performance analysis at the bottom of the computer.

As for working hours, I think it is relatively easy. Compared to the programmer 996 that the outside world generally thinks, my off-get off work time is almost concentrated around seven o'clock every day. But this may also be related to my lighter task.

In terms of the newcomer training plan, I think it is still relatively imperfect. My mentor basically only tells me what to do, and I need to find out how to do it myself. This may be a problem for many Internet companies, and they are very important to newcomers. Of course, this also cultivated my ability to solve problems alone.

The work I have done

After joining the company, I have completed many development tasks. In order to save space, I will not elaborate on them one by one.

The first task is to complete the translation of English comments in the code. The main purpose of this is for potential work handover in the future. Taking this opportunity, I continue to be familiar with the code structure of the project, and also to understand the entire business logic.

The second job is more important and is about security. Tik Tok Live has an anchor signing function, which requires the anchor's identity information to be uploaded to the server. However, due to historical reasons, the uploaded information is not particularly well protected. I studied the logic and at the same time studied a front-end encryption solution to solve this problem. Finally, the upload information uses the AES256 encryption algorithm, and the obfuscation technology is added to the front end to increase the difficulty of destruction.

The third job is about performance optimization. At that time, the first screen performance of Tik Tok's live broadcast related pages was not very good, and there was a big gap compared with domestic Douyin. So a colleague and I were assigned to improve display performance. We tried many solutions, such as loading fonts asynchronously and deleting redundant resources in the project. In the end, we got better results, and the technical solutions were also shared with other colleagues.

Your plan of second half of internship

After having experience in Web development, I find my true love in database system development. If I have second half of internship, I want to transfer to infrastructure department and do database kernel development.

Conclusion

This internship experience in an Internet company is very important to me. It proves that I have the ability to work in a large company, and it also allows me to know how to plan my career path.