**Introduction**

My name is Di Zhu. I am a graduated master student form UIUC. My major is mechanical engineering. Now I would like to change my career path form mechanical engineering to software engineering. Hence I took the online classes such as data structure and algorithm, and I also finished a full-stack developer training program lasting four month. During the program, i learned how to build a web app in both front-end and back-end and also leaned how to develop an Android Application. From the video you send to me, I know working at pronto progress will face new challenges everyday and teammates will help each other to get job done. As a software engineer in Pronto Progress, they wouldn’t just do coding, they would also do analysis, testing, manage project and maintain program. I really like all of these things compared to my current job which I need to follow the routine and do the same thing very day. This is why i want to join pronto progress.

Thank you for your time and consideration.

Edited

Good afternoon, my name is Di Zhu and I hold a Master’s degree from UIUC in mechanical engineering. Now, I would like to change my career path form mechanical engineering to software engineering. Hence, I have taken online courses such as data structure and algorithm. I have also completed a 4 month full-stack developer training program. During the program, I learned how to build a web app in both front-end and back-end and also learned how to develop an Android Application.

From the information in the video you sent me, I know working at pronto progress will face new challenges every day and as teammates we will help and motivate each other to complete assignments. As a software engineer at Pronto Progress, it isn’t just about coding, but also about analysis, testing, managing projects, and maintaining programs. In contrast to my current position where there is no room for creativity and is more focused on maintenance, Pronto Progress where I know I can exceed and follow through my vision as a software engineer. This is why I want to join Pronto Progress.

Thank you for your time and consideration.

**Why do i want to change my job?**

After I graduated from University, I was trying to find a job related to my area which is Control. But When I went to interviews, interviewers would ask me questions about embedded system and do you know how to use C++. Since my university focused on control theory research, i didn’t learn how to use C++ and also I didn’t know too much about programming. So I failed my interviews many times. As an International student, we have the unemployment period. After that time, we will be considered as illegally staying in the United States. So I accepted current job, even if it doesn’t exactly match my major. At that time, I was thinking programming skill is a very important skill for my career. One day, my girlfriend asked me could i build a website where she could post products information on the website. Since my girl friend is a freelance retail consultant, she doesn’t want to repeat answering the same questions from customers. Because I am an engineer. My nature is to build something up and i have already realized programming skill is very important, so I decided to take online class to learn to how to program and build an website. As I keep learning programming, i found myself start to like it. That’s why I want to change my job.

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After graduation, I was trying to find a job related to my area which is Control. However, during the interviews, recruiters would ask me questions about embedded systems and whether or not I knew how to use C++. Since my university focused on control theory research, I didn’t learn how to use C++ and I also didn’t know too much about programming. Hence, I failed my interviews many times. As an International student, we have the unemployment period. Once that period is over we will be considered as illegally staying in the United States. So I accepted my current job even if it doesn’t exactly match with my major. At that time, I was thinking programming skills are essential for my career. Moreover, one day my girlfriend (who is a freelance retail consultant) asked me if I could build a website where she could post information about products to avoid answering the same questions from customers. Since I am an engineer, my nature is to build something and I realized programming skills are very important, I decided to take online classes to learn how to program and build a website. As I kept programming, I discovered a new passion and have a new vision for greater opportunities. My US work authorization is CPT.

**Job search and commendation project**

I developed an interactive web page with many functions such as register, login/logout, job search and job recommendation. Once a user login the page. It will search job information nearby the user according to his IP address or geographic coordinates. The job information will be fetched from Github Job API and will be stored in MySQL database on Amazon RDS. The web page will also provide personal job recommendations according to favorited job records of a user. The MonkeyLearn API will extract keywords from the job description. Based on these keywords, the content based recommendation algorithm is applied for job recommendations.

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I developed an interactive web page with many functions such as register, login/logout, job search, and job recommendation. Once a user logs in, the site will search for jobs according to the user’s IP address or geographic coordinates. The job information will be fetched from Github Job API and will be stored in MySQL database on Amazon RDS. The web page will also provide personal job recommendations according to favorited job records of a user. The MonkeyLearn API will extract keywords from the job description. Based on these keywords, the content based recommendation algorithm is applied for job recommendations.

NBA project

This project is to create a dashboard to visualize the NBA player’s shoot data with using React, D3 and Ant Design. On the top of the dashboard, there is a auto-complete player search bar. If user doesn’t type in the full name of a NBA player in the search bar, it will provide a suggestion list of players with name and image. Once users find their favorite player. The player’s profile will show on the left side of the dashboard and his shot data will be demonstrated on the right side in a shot chart. All the players’ data will be fetched from stats.nba.com. User can customize visualization on the shot chart by changing the shot themes and adjusting attempts filter.

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This project was designed to create a dashboard to visualize the NBA player’s shoot data by using React, D3 and Ant Design. On the top of the dashboard, there is an auto-complete player search bar. If a user doesn’t type in the full name of a NBA player in the search bar, it will provide a suggestion list of players with their name and picture. Once users find their favorite player, the player’s profile will show on the left side of the dashboard and his shot data will be demonstrated on the right side in a shot chart. All of the players’ data will be fetched from [stats.nba.com](http://stats.nba.com/" \t "/Users/ninjabear/Documents\\x/_blank). Users can customize visualization on the shot chart by changing the shot themes and adjusting attempts filter.

Online store project

This project is to construct an online store using Spring framework and Spring MVC. For a manager user, he can post, remove and manage products on the shopping website. For a customer, you can look for products and order them. Hibernate is utilized to provide support of database operations such as maintaining all the users and products information. Spring security is applied to check user’s authentication and authorization during the login progress. Spring Web flow is support customers to finish check-out process. At last, fulfillment system is implemented by using AWS Lambada and AWS step functions.

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DriveAssiet App

Matrix is an Android Project which provides a general platform for drivers to share traffic condition events. Drivers are able to register their accounts and able to login. Driver can upload events, watch events, check details and give comments on Google Map interface. Matrix uses cutting-edge framework Firebase to establish flexible and maintainable backend service group. Uses Toolbar, ViewPager and NavigationView combination to build user-friendly UI framework. Integrated Google Map to allow users checking instant events at their convenience.

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Matrix is an Android Project which provides a general platform for drivers to share traffic condition events. Drivers are able to register their accounts and able to login. Drivers can upload events, watch events, check details, and give comments on Google Map interface. Matrix uses cutting-edge framework Firebase to establish flexible and maintainable backend service group. Additionally, this uses Toolbar ViewPager and NavigationView combination to build a user-friendly UI framework. Integrated Google Map allows users checking instant events at their convenience

Referral letter

Please accept this reference as an expression of Di Zhu’s interest in the 2021 Software Engineer position at Bloomberg in New York. I know Di is talented and a hardworking person. Even though his major is mechanical engineering, he has a strong background of algorithm and data structure. He has experience in developing websites. For example, in the job search and commendation and online store projects Di used HTML, CSS, JavaScript and React to design user interface. He utilized J2EE, Apache Tomcat Server, Spring framework, and Spring MVC to build the back-end logic of the web app such as handling HTTP requests and response with RESTful APIs, etc. He also applied MySQL database based on Amazon RDS in his projects by using JDBC and Hibernate. He developed an Android app which is a platform for drivers to share traffic condition events. This app uses framework Firebase to establish flexible and maintainable backend service group which uses the combination of Toolbar, ViewPager and NavigationView to build a user-friendly UI framework. Di connected the Integrated Google Map to allow users to check instant events at their convenience. Lastly, Di also has knowledge related to machine learning. He built a Neural Network and Convolutional Neural Network by using Python TensorFlow to classify wear stages of ultrasonic welding tool.

Why do i need to hire you

I want to improve myself. Employers would like to hire the person who would like to change himself, improve himself, learn new things. Employer don’t want to hire the person who has the background but doesn’t want to work or learn new things. For myself, I would like to learn new things and improve myself.

I want to prove myself has the ability to do the software engineering job. I am lack of background of software engineer. I need to work hard to prove myself.

Sprite of sports, we keep fighting until the end of a game. We never given up.