QMIND

Queen's Machine Intelligence and Neuroevolution Design

Queen's AI Hub

AI

Fall Hiring Guide: Design Team Interviews
2021-2022

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1   Introduction

Welcome to the QMIND 2021 Fall Design Team Hiring Guide. In the first section of this document you will find important information outlining the entire interview process, do's and don'ts, as well as tips for conducting a good interview. The document ends with the interview questions that you can choose from during the interview. Every panel will have a DoD/DoR/DoDT/MDoD on it. The panels were structured in such a way so if you have any questions throughout the process, you will have the support of one of us. Please read the document completely before the interviews take place and reach out if you have any questions.

2   Interview Process

Interviews will take place:

- Sept 22nd to 24th from 5:30pm–9:30pm
- Sept 25th (Saturday) from 9:00am–3:00pm

All interviews will be held virtually using Zoom. You have already been assigned to your panel for the interviews. Each panel consists of a DoD/DoR/MDoD and 2 Project Managers. Although the interview will be led by the DoD/DoR/DoDT/MDoD, all Project Managers will be involved in the interview process and are required to asks questions.

Link to hiring panels: 🗓 DoD Panel Schedule

Before the Interview

- Please be ready to join each zoom call before the initial time slot. The panel lead will need to join first and will distribute the zoom link to all panel members
- Make sure your laptop is adequately charged and can be charged as you won't want it to die
- If you feel it will be useful to you, have paper and a pen to take some notes after the interview. You will be required to put notes into a spreadsheet after the interview.
- Find the next interviewee within the spreadsheet.
- If you have time, briefly look over the applicant's resume and application within the spreadsheet. **Note that the director running the interview <u>must</u> review the resume and application**

During the Interview

During the interview, you and the other panelists will take turns asking interview questions from the set list of questions provided at the end of this document. The goal is to ask 5-7 questions total. Keep in mind that the interview is **maximum 12 minutes.**

- The interviewee will join the Zoom call at the start of their interview time. You should already be in the call at this point
- The director conducting the interview will introduce the panelists and briefly discuss the interview process
- The director will then begin the interview by asking the first question
- Each panelist will cycle through asking the next question. Know your order and questions before you get to this part, so it all runs smoothly.
  - While you may be able to ask follow up questions if you feel they provide value, again note that the interview can only be 12 minutes.
- If time permits, the Director will finish the interview by asking an application or resume specific question
- After the last question, the Director will ask the interviewee if they have any final questions to ask the panel
- The interview is now over, and the interviewee will leave. You will move to the next zoom call.

After the Interview

Once the interview has concluded and you have made your way to the next Zoom call, you will have approximately 3 minutes to finalize your notes in the spreadsheet and discuss your thoughts with your panel. Without conversing with your panel, make a note of whether you thought the candidate is a Big Yes, Yes, No, Big No (BY, Y, N, BN). Try and limit your big yes's and yes's to who you feel are the best of the best. Also make note of what skill level you think they are (None, Low, Medium, High, Super). After filling out the spreadsheet, find your next applicant and quickly pull up the resume and application.

3   Interview Do's and Don'ts

- While the interviewee is answering the questions, make sure you are looking at them. Do your best to pay attention and write your notes down after they finish answering
- Your notes should not be a direct word-for-word of what the interviewee said. Instead, try and summarize the key points from the response and how you felt about the response. These notes will be used in deliberations after the interviews.
- Do your best to really listen and be engaged with each interview. You will most likely start to feel tired.
- Try and not sit deadpan while the interviewee is speaking. Especially as you approach the end of the interviews, it is easy to sit there and not react to anything the interviewee is saying. Try and smile or nod as it can be daunting as an interviewee if the panel is just staring them down.
- Don't send your panel messages during the interview. It can be easy to send them something on slack during the interview.
- Have fun with it, this is a student club.

4   Interview Tips

- As said previously, keep your notes short and informative.
- Make note of something from the interview that will help you remind you of that interview. An example of this is if the person wore a Snoop Dogg shirt, say they wore a Snoop Dogg shirt on your notes and you'll probably remember who that person was when it comes to deliberations.
- Keep a list of people you would vouch for in deliberations. Keep this list as short as you can, don't over do it.

5   What Makes a Good Candidate

There are many things that make a good candidate. Although it would be great to have someone that knows everything about AI and can code anything, if they are disrespectful to everyone and plan on leaving the team when midterms roll around, they aren't a good candidate. Someone who has some general software skills, has a passion for AI, wants to learn, and is respectful of everyone on their team is a much better candidate. Soft skills are just as valuable to the team as technical skills. While there are no real technical questions being asked in the interview, you should be able to gain a general understanding of the technical abilities of each candidate.

After each interview, you will be required to write a 1 sentence summary of your thoughts on the candidate. These categories will help you get a better understanding of what makes a good candidate. As mentioned before, its not just one skill that makes someone the perfect candidate.

Interview Preparedness

This is the amount of effort the interviewee put into the interview. Did they show up on time and not wearing pajamas? Do they know what QMIND is? This is a measure of the effort they put into making a good impression. If they came prepared and ready for the interview, they would do the same for meetings throughout the year.

Culture Fit

Culture fit is looking at the passion and interest of the candidate. Do they seem like they will remain engaged all year long? Do they know why they want to join QMIND? Do they feel like they will benefit

from QMIND or do they just want to put it on a resume? Are they motivated to learn? Normally you can figure this out from the "Why QMIND?" question. This is an important quality as was brought up before. We are looking for candidates that provide value to QMIND and genuinely want to be on the team.

Teamwork Skills and Experience

This category is the amount of experience the candidate has working on projects or in teams. This experience can come from non-technical projects and important school projects can even be used as examples here. This also isn't just the actual experience this person has but the qualities as well. Do they seem like a team player? Do they seem open to other peoples' opinions? Basically, is this someone that you would want on your team.

General Software Skills

In this category we are looking to see if the candidate has any experience with programming and software in general (not specific to AI/ML). While we aren't explicitly asking someone about their software experience, you should be able to get a good understanding of their knowledge from the interview questions and their application. Do they have no programming experience at all, or are they someone who has worked on several software projects in the past and has shown the ability to learn multiple coding languages. If applying to consulting, technical standard should be higher.

AI Knowledge

This category refers to the interviewee's experience with machine learning and/or AI. This is separate from general software skills as an applicant may have minimal experience with programming but has read up on machine learning and has extensive knowledge with the applications of specific models. Like general software skills, you won't be specifically asking the candidate what their experience is with ML/AI but you will get a good understanding from the general AI questions asked in the interview.

6 Hiring Questions

In this final section you will find the list of interview questions that you can ask the interviewee. Each section only has a few questions in it for you to select from, and you should aim for about 7-8 questions total.

Introduction

- Why do you want to join QMIND?
  - This should always be the starter question and will be asked by the Director leading the panel. This question is a good way to break the ice and gives us insight on their true intentions.
- What do you hope to achieve by joining QMIND? What are your goals?

Teamwork

- Tell us about a time you worked in a team and had some difficulty. How did you overcome it?
  - Insight into whether they have worked with others, and how they work with others.
- When you are working on a project, what is your role usually?

Relevant Project Experience

- Tell us about a major non-academic project you have worked on at Queen's so far or otherwise and tell us what you accomplished.
- What is a project you are most proud of and a technical problem that you had to solve? How did you solve that problem?
- What kinds of things have you been involved with at Queen's so far/at high school?

General Software Skills

- What is the most complicated program you have ever written? Give us an idea of what it did and the steps that you took.

AI/ML Knowledge - Innovation Stream or DAIR

- Pretend I am your grandmother and explain to me what AI is
- You want to predict housing prices, what features might you want or approaches you would take?
- Briefly explain an example of AI/ML in the world
- Explain neural networks in ~30 seconds
  - This is a super spicey question that should be used at your own risk. Don't ask this question to someone that is brand new to the field of AI

AI/ML Knowledge - Consulting Stream

(Don't need perfect answers for these but should have an idea for some)

- Can you name the 3 types of machine learning? (supervised, unsupervised, reinforcement)
  - Can you explain [one of them] [in simple terms]
  - Can you explain the difference between [two of them]
- What is the difference between KNN clustering and K-means clustering
- What is the difference between Type I and Type II error?
- How do you handle missing data or corrupted data?
- How does data overfitting occur and how can it be resolved?
- What would you do to evaluate the effectiveness of your ML model?
- What experience do you have with ML development libraries (ie. TensorFlow, Keras, PyTorch)

Consulting Stream Specific: ask one of

- Have you worked with a client before? If so, tell us the most challenging aspect in your opinion and what you learned.
- Tell us about a time a project got off track and how you got it back on track?

Disruptive Tech Specific: ask more if first choice, just one if second choice

- Why are you interested in DT?
- What technology are you most interested in working with – blockchain or quantum computing? Why?
- Can you tell me about an application or blockchain/quantum you think is interesting?
- Where do you see blockchain/quantum in 10 years? Are there any particular industries that you think the technology will disrupt?
- Can you tell us about a time you learned something new?

DAIR Specific: ask both if first choice, just one if second choice

- Tell us what excites you most about research in Ai/ML. Why DAIR over other divisions?
- What experiences have you had, if any, in conducting research in these fields, as well as the research process in general?

Project Manager Specific: these candidates should also be quite strong technically, but a focus on their organization is important

- What do you hope to get out of being a project manager
- What do you think will be your biggest challenge and how will you tackle it
- How will you handle the workload of school and anything else you do at Queen's with the responsibility of running a design team

Product Team Specific: ask more if first choice, just one if second choice

- What is a product/program/website/app that you built yourself that you are the proudest of?
- Can you provide us with a link to your code (GitHub) or can we see it in action somewhere?
- Which coding languages/frameworks have you used in front and backend development?
- What experience do you have working with backend development frameworks?
- What experience do you have developing and designing front-end user interfaces?

First Year Rep: ask this question if they applied for FYR

- What is one event or initiative, unrelated to your specific design project, that you would like to pursue as a First Year Rep at QMIND? This could be something related to the Educate, Professional Development, Partnerships, Finance, Events, Design admin, Internal Affairs, etc. portfolios – be as creative as you want!

Closing

If time permits, the Director leading the panel should ask a question that directly relates to the interviewee's application or resume

- What did you learn at …?
- Can you elaborate on what you meant with …?