HireHelp Senior Design Project Business Analysis

Project Name: HireHelp

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Executive Summary:

While there are resources available for students to practice technical interview questions, there are limited resources for practicing behavioral interview questions, which are an equally important part of interviews. Our goal is to provide a suite of tools to help candidates to better convey themselves on a more human level, beyond the technical qualifications, to help them get the jobs they deserve.

Specifically, we're building an interactive platform for students to practice answering behavioral questions for job interviews. The platform will generate sample questions; the user will then verbally answer the question and receive customized feedback on improving their response (i.e. suggesting a better, interview-quality version of the response given).

Current Prototype Demo: (link)

Value Proposition:

First and foremost, the value proposition comes from the fact that there are limited tools available for individuals who want to practice behavioral interview questions. Behavioral interview questions are becoming a crucial part of interviews, with all respondents to our survey of Penn Students indicating that they were asked a behavioral interview question in at least 80% of interviews. Current tools for practicing behavioral interview questions include memorizing answers or practicing with friends, as was evidenced by our survey. As such, HireHelp's value proposition is that it provides customized, tailored feedback on responses to behavioral interview questions. It allows individuals to understand where their responses may be lacking or how to structure their responses better. Furthermore, the interactivity of our platform helps provide a more engaging and, thus, effective experience that simply cannot be replicated by reading an interview guide or practicing individually.

Secondly, people from anywhere in the world can use HireHelp if they have an internet connection. While students at institutions like Penn may have access to upperclassmen who have experience answering behavioral interview questions and can help provide practice, only some have access to these resources. Our platform helps bridge this gap and provides many more people with the tools necessary to succeed. Additionally, the platform's scalability, which is not bounded by actual humans assessing and providing feedback, also ensures that individuals can get ample practice, which may not be the case when doing in-person mock interviews.

Lastly, HireHelp also helps ensure better matches between employers and employees. By practicing behavioral interview responses, candidates can better express their true selves, which can help ensure that companies hire the right candidates, leading to more satisfied and productive employees and reducing turnover. Companies can also make use of HireHelp to train their employees to communicate their ideas clearly, which can lead to increased job performance. Companies can also use HireHelp for hiring by assessing candidates' responses, which can help highlight the pros and cons of each candidate's response. This will help companies ensure that they hire the right people for the job, improving overall efficiency and decreasing hiring time and costs.

Stakeholders

1. <u>Job Searchers/Candidates</u>

Individuals who are searching for jobs are a key stakeholder since this project is designed to help them practice their behavioral interview skills. It is their pain that this project aims to address by providing a practice tool that is superior to the alternatives currently available. The aim is that using this tool will help them be more confident in their abilities and do better in real-world interviews.

2. HR Departments/Companies

HR professionals are a stakeholder firstly because they are the individuals who are assessing the candidates that are using the platform. Furthermore, HR professionals are our target market for potential future versions of HireHelp where companies can use our response evaluation tool to aid in assessing candidates.

3. Colleges and Universities

Colleges and universities, and specifically their career services departments, are potential collaborators. Career services departments are always looking for resources to help students better prepare for interviews, and this platform is specifically targeted towards college students and recent graduates.

4. Career Coaches

Career coaches are a key stakeholder since they offer a service that is either complementary or competitive to this platform. Career coaches could use HireHelp as an additional resource to allow for more independent practice. However, the platform may also compete against career coaches since the platform is far more cost effective and scalable than a career coach.

5. Recruiting & Interview Prep Platforms

Other recruiting and interview prep platforms like HireVue and mock interview platforms are potential competitors in the technology-enabled hiring space. Not only do these platforms currently act as competitors, but they could begin investing in building their own AI agents to improve their services and thus, could present an even bigger threat to HireHelp in the future.

Customer Segments

1. Candidates Searching for Jobs

HireHelp primarily targets individuals seeking internships or jobs, which includes college students, recent graduates, and young professionals. Individuals aged 18-27, particularly college students and recent graduates, are likely most in need of guidance since they lack interview experience and may need additional practice to perfect their interview skills. However, anybody who wants to improve their interview skills for any interview context is a target customer for the platform.

2. <u>Human Resources Departments of Companies</u>

A next step for the platform is to develop the to-business segment of HireHelp that provides hiring and training solutions to HR departments for the following purposes:

a. Interview & Hiring Process

HireHelp could serve as an AI-enhanced version of HireVue or other virtual interview platforms. These platforms provide the preliminary screening of candidates in the interview process, and there will often be hundreds or thousands of responses for each role. HR departments spend a lot of time and resources reviewing these responses to select candidates, and HireHelp could be used as a tool to automatically conduct this initial screening of interview question responses and also provides in-depth evaluations that can be utilized in later parts of the interview process.

b. Employee Training Programs

HireHelp can also be used for certain consumer-facing or people-facing roles, such as law, finance, or customer service, in order to help professionals improve their communication skills. HR professionals could use HireHelp when developing a training program to allow employees to practice independently and get customized feedback on how to improve. This would add flexibility to the training program and help professionals further enhance their communication skills.

Market Research

The AI-powered behavioral interview prep software market for candidates is a growing segment with considerable potential, especially considering the increasing involvement of universities as customers. Technological advancements drive the market, the shift towards digital learning tools, and the globalization of the job market, amidst a competitive landscape with diverse players. The space is quite fragmented, given the nascent technology and newness of the segment. We believe this leads to an ample opportunity for a strong product to differentiate itself in this market.

Market Sizing

To estimate the market size, we considered the number of university students graduating annually who are potential primary users of such services. For instance, in the U.S., millions of students graduate from universities

each year. We can derive a rough market size by assuming a certain percentage of these students use AI-powered interview preparation services and estimating the average revenue per user (ARPU).

Given that there are 3 million university graduates in the US¹, we estimate 30 million university students and recent graduates in the United States. If 10% use these services at an ARPU of \$200, the potential market size from this segment alone would be approximately \$600M annually in the U.S.

We cross-checked our analysis with public market research and found that our figure was similar. RationalStat, a market research provider, estimated the global AI video interview market to be \sim \$430M in 2024 and projected to grow at a CAGR of \sim 27% until 2030² which falls in line with our estimates.

In addition to our proposed initial target market, there is substantial room for the core technology to be used for adjacent markets. For example, we could use the core AI model to help companies train sales development representatives, which taps into a ~\$5B market.

Market Growth

This market falls between the broader job preparation and coaching market. In particular, it's growing in tandem with broader trends in online learning and career development services. The increasing focus on career development and the rise in remote job applications, accelerated by the COVID-19 pandemic, have made online interview preparation tools more important than ever.

Universities are becoming a significant customer segment for these services. As higher education institutions seek to enhance their career services and improve employment outcomes for their graduates, partnerships with AI-powered interview prep platforms are becoming more common. These platforms are seen as a value-add service universities can offer their students, helping them become more competitive in the job market.

Catalysts for Growth

- 1. Technological Advancements: Integrating AI and machine learning in interview prep tools allows for personalized feedback and a more interactive learning experience.
- 2. Increased Demand for Remote Learning Tools: The shift towards remote learning and working, hastened by the pandemic, has led to a greater reliance on digital tools for job preparation.
- 3. Globalization of the Job Market: As the job market becomes more global, candidates are seeking preparation for a broader range of interview formats and cultural norms, which these platforms can provide.

Competition

The AI-enabled interview preparation industry is relatively new but rapidly evolving, focusing on helping candidates enhance their interview skills through personalized, AI-driven feedback and practice scenarios. These tools simulate real interview environments, providing users with an interactive platform to improve their responses, communication skills, and overall interview technique. It is worth noting that there is very limited, if any at all, information regarding these platforms' funding and valuations. This leads us to believe that the space is indeed very new and is on the rise, with different platforms offering unique features to appeal to incoming users.

RightJoin, Interviewsby.ai, and Job Interview AI are players in this field³⁴⁵. RightJoin distinguishes itself with personalized mock interview sessions tailored to the user's resume and job listing, covering various interview formats, including behavioral, technical, and case studies. It also enables users to continuously practice and

¹ National Center for Education Statistics, 2020-2021

² RationalStat 2023

³ RightJoin

⁴ Interviews.ai

⁵ Job Interview AI

receive detailed performance assessments, thus better preparing them for interviews. Interviewsby.ai offers custom-made practice sessions using ChatGPT, focusing on real-time feedback via voice input. This feature makes the practice sessions more interactive and effective, helping users refine their answers and presentation skills. Job Interview AI is targeted at refining business English skills in real-time. It provides features like subtitle functionality for pronunciation assessment and tailored scenarios for various industries driven by an AI-enabled backend. This allows candidates to practice at their own pace, enhancing their communication skills and preparing them for diverse interview situations.

Cost Model

The cost structure consists of two main components: (1) cloud services for storing interview questions, user profiles, and response recordings and (2) an LLM evaluator that takes in responses and outputs feedback. For cloud storage, we maintained MySQL databases on the Amazon Relational Database Service (RDS) platform to store interview questions and user credentials, and this service costs around \$30 per month. Additionally, storing each recording would cost \$0.0672 per year. For the LLM evaluator, our current approach is using GPT-4's Assistants API to evaluate the content and delivery of responses. This approach allows us to design our application in a lightweight manner. The cost per response evaluation is around \$0.1955, with Vision accounting for 60% of the cost. In reality, the cost could vary by as high as 100%, so the safest upper bound of cost per evaluation would be \$0.40. Please see the appendix for the detailed cost breakdown.

Revenue Model

Our proposed revenue model is a "seat-based" subscription model that charges universities and corporations on a per student/employee basis. Our proposed standard price would be \$120/seat a year for standard features (textual feedback) and \$240/seat a year for the premium tier (includes additional audio + visual feedback). This corresponds to \$10/month vs \$20/month pricing setup with options for further negotiations for especially large buyers of HireHelp.

This business model is beneficial for two main reasons. Firstly, this helps us maintain a stable margin profile for each contract we close. As described in our cost model, our costs are largely tied to the cloud costs of storing user profiles and response recordings of individual users. By tying the subscription price to the number of users served, we can have revenue increase proportionally with costs. Secondly, a subscription model is very familiar to our target market and also provides a stable, recurring revenue stream. Many universities and corporations already pay for a variety of software tools to manage internal processes and improve the well-being of students. SaaS is easy to deploy and easy to cancel if perceived to not add value. This comfortability would make selling into our target market easier than alternative methods of software pricing.

We justify our pricing through two main avenues. Firstly, we conducted a value-add analysis for students and universities. Secondly, we cross-checked this figure by conducting a comparable pricing analysis for similar software that universities currently buy. In both cases, we confirmed that our proposed price is fair and would be reasonable to charge to our target customer. (See Appendix for both analyses).

Appendix

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For the LLM evaluator, our current approach is using GPT-4's Assistants API to evaluate the content and delivery of responses. This approach allows us to design our application in a lightweight manner. The GPT-4 model costs \$0.01 per 1000 tokens for input and \$0.03 per 1000 tokens for output, and the GPT-4 vision model costs \$0.01105 for each 1920x1080 image. Our typical content evaluation involves uploading the user's response, which should be around 4000 tokens along with GPT Assistant instructions, and then GPT would output an evaluation of around 1500 tokens. We also plan to upload 10 screenshots throughout the recording to evaluate the posture of the candidate. Altogether, the cost per response evaluation is around \$0.1955. In reality, the cost could vary by as high as 100% due to OpenAI's calculation methods, so the safest upper bound of cost per evaluation would be \$0.40.

Revenue Model

Value-Add Analysis

Hirehelp fundamentally aims to help job candidates have better placements at various employers by being the best interview prep tool for their use case. This end goal is synergistic with a university's bottom line, as improvements in job placements have been tied with increases in student satisfaction and perceived university prestige. In fact, a 2009 study by Abhay Shah from the Journal of Marketing for Higher Education⁶ concludes that "[University] revenue increases due to...[better] placement of graduates" after examining second order effects of better student placements. We estimate that given the current lack of formal behavioral interview training, our product could improve placement outcomes ~3-5% depending on the context. In this case, incremental university revenue could scale in line with this placement improvement.

Comparable Pricing Analysis

Our core product has significantly more functionality than our competitors which justifies its premium pricing. While we set our standard tier to the same price as RightJoin (\$120/year), we charge double for the premium tier that includes visual and audio feedback due to the increased cloud storage costs. Delving deeper into how we differentiate, in addition to the personalized textual feedback provided by our custom AI evaluator model, HireHelp also provides audio and visual feedback. To be direct, this is a significantly better tool than RightJoin - which doesn't provide personalized feedback, and Interviewsby.ai which lacks - video feedback altogether.

Competitors:

- -RightJoin (\$120/yr) competitor
- -Interviewsby.ai (\$108/yr) competitor

Other Common Software:

- -Canvas (\$324/annually per student) core learning management software (LMS)
- -EdDiscussion (\$72/annually per student) non-core learning management software (LMS)
- -HeadSpace (\$70/annually per student) wellness benefit to students/employees

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⁶ Shah Study