Leveraging Achieved Skills to Improve Confidence Between Students and Employers

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Abstract

Even as recruiters struggle to find qualified candidates, potential applicants too frequently lack confidence that they meet the requirements to apply. To bridge the gap, trust and confidence must be developed, with skills as the common language between them. The University of Phoenix achievements microservice presents an opportunity to achieve these goals by establishing records of learners' accomplishments and attested skills that can be communicated and verified, as well as used to identify job postings for which applicants are qualified.

Executive Summary

The job application process can stymie both recruiters and applicants alike. Recruiters are left sifting through applications they do not have full confidence are accurate; and applicants might struggle with knowing whether or not to apply, even for a position they are qualified for.

We at University of Phoenix are aware of this potential confidence gap, gained through insights using the discovery model of product development, as practiced by those of us on career-focused product teams. During this process, we interview students to glean their needs and wants. When interviewing these key users, we uncovered just how frustrated

learners can be by job applications, and not just because the process can be difficult to navigate. Many job searchers find themselves stymied by job postings that—despite aligning with their skills and qualifications—don't make that connection explicit or clear. Without it, applicants might not have the confidence necessary to click apply. The job application process isn't giving them the support and clarity they need.

Additionally, employers seeking to fill positions can only act if they themselves are confident that they are finding the right resources to do so if they have a complete and trustworthy picture of prospective employees' background and skillset. This shows that aligning on a skills-based jobs marketplace means providing confidence and support on both sides of the hiring process: for applicants and hiring managers alike.

To address this, the product team has developed an achievements microservice, comprising technical solutions to enable students to review and track their achievements and skills progress, emphasizing skills as a currency in the job market. This tool can show how a focus on trustworthy skills records can help students gain the confidence to apply for job postings—including jobs for which they already have the identified skills as well as those they are on track to be qualified for in a predictable timeframe.

Providing all parties with these supports also provides potential functionality that can align with initiatives to develop learner employment records (LERs) that can become the backbone of a skills-based marketplace.

Section 1 – The Applicant Crunch

As of 2022, the median application rate for a job posting per times viewed is a scant 5% (Appcast, 2022). A study done by Kolmar (2023) found that the average corporate job posting receives roughly 250 applications and companies typically offer 6-10 candidates for an interview which equates to about 4% or less of applicants on average receiving an invitation to interview.

Furthermore, the job application process also reflects startling disparities along gender lines. A survey by Tara Mohr (2014) reveals a gender gap in confidence for applying to a job, with men tending to apply for a job if they meet at least 60% of the qualifications for that job posting—while women are not confident enough to apply until they meet 100% of the qualifications. Janet Phan (2022) even found women lacking confidence to apply for job postings until they feel *overqualified*. These gender disparities are particularly relevant to University of Phoenix, which in 2022 awarded 17,870 degrees to women and 8,143 degrees to men (Data USA, 2022). If University of Phoenix can show students how job postings connect to their skill sets, these students can more clearly understand whether they are

qualified. In turn, they can feel confident enough to apply. Specifically, the product team intends to accomplish this through our achievements microservice: a technological solution that facilitates the collection and fetching of a student's comprehensive record of skills and achievements. With these solutions in place, users can more comprehensively find jobs postings they may be qualified for, as well as communicate their qualifications to employers—all while building trust and confidence.

Spotlight – Hiring Manager Woes

Improving applicant confidence can be a boon to employers as well as prospective employees. A survey by Robert Half (2019) shows that HR managers see up to 42% of resumes received from candidates who don't meet the skill requirements for the posted position. With a skills-based approach from University of Phoenix, students and employers alike can have more visibility into the necessary skills as well as who qualifies—helping employers work from a larger proportion of potentially qualified applicants.

Section 2 – Skills to the Fore

Skills are increasingly becoming the unit of currency by which potential job candidates are identified and have "displaced occupations as the unit of analysis by which the job market should be measured" (Lightcast, 2023, p.4)—and Juhohn Lee et al. (2024) have found that skills have had an increase in importance for employers, with employers expressing interest in an applicant's provable skills over their traditional degrees. Indeed, a report by TestGorilla (2023) emphasizes employers' interest in skills-based hiring's speed and cost effectiveness, even going so far as to see it as significantly reducing the risk of mis-hiring compared to traditional resumes. However, CAEL (2024) shows that while a vast majority of higher education institutions agree upon the need to make changes toward skills, competencies, and achievements for a learner, there does not seem to be a sense of urgency, as few institutions seem to be moving forward with skills-based frameworks.

University of Phoenix, however, recognizes the increased emphasis and importance of earning skills to help improve a student's marketability in the job market, and the University created and implemented a skill-tagged curriculum—mapping skills in all associate, bachelor's, and master's degree programs open for new enrollments (Billings, Smith, Halpern, & Savron, 2023). Building upon this skill mapping, the product team can confirm what skills a student has achieved, and also what skills they are on track to achieve in the upcoming courses of their degree program. This allows students full visibility into their own skills portfolio so they have the confidence to apply for jobs they may already be qualified for, as well as jobs they may soon have the qualifications for based on their current track.

Spotlight: Defining Skills

University of Phoenix has mapped for-credit credentials (associates, bachelor's and master's) to market-relevant skills. Skills are determined from labor market research (including future forecasts), programmatic accreditor standards and guidelines, industry advisory council insights, employer needs, and faculty expertise who work in the fields they teach. As students progress and complete courses, outcomes data is captured from assessments and results as acquired skills are populated in students' skills profiles.

For the purposes of the achievements microservice, the product team leverages Lightcast, who developed Open Skills to quantify the skill requirements of an open job position (Lightcast, 2022). This taxonomy includes more than 33,000 skills defined and broken into subsets such as technical or hard skills which are "people's abilities, knowledge, and expertise that are needed to carry out specific tasks or activities effectively" (Lightcast, "What Are Skills"). Using the Lightcast API, data from job postings and social profiles are collected, then matched to skills using machine-learning algorithms. These can identify the skills that are most correlated to an applicant's likely success in a particular career or job. They can also help identify what skills an applicant lacks, highlighting gaps to fill in order to make more opportunities available.

Section 3 – Rethinking Applications

As seen through workforce studies like McKinsey and Deloitte, skills-based hiring is on the rise, and this is where our achievements microservice and skills come in.

Focusing on skills-based learning, University of Phoenix built a microservice to track student achievements and skills. This effort is concentrated on delivering a talent acquisition process that leverages this microservice to make the identification of qualified candidates for talent recruiters easier and smoother while simultaneously boosting the confidence in a student when they view a job posting that they are qualified for.

To create a full and robust record of every applicant's total skillset, University of Phoenix tracks the courses learners have completed—and because every course is mapped to its skills, the microservice can easily track the skills every supplicant has acquired as well. The microservice can then record those skills as achievements, which aim to provide a more comprehensive view of a person's skills, knowledge, and abilities. Together, these achievements provide detail that traditional academic transcripts do not. Furthermore, University of Phoenix allows learners to self-attest skills that they have acquired from previous employment or experience, which are also stored in the collection of achievements, allowing for increased detail of their full qualifications. Meanwhile, whether

an achievement came from a course or is self-attested, the achievements microservice can define each skill in accordance with what is identified in the job market.

By capturing this complete and three-dimensional record of a student's skills and achievements, University of Phoenix provides potential employers with a more detailed look at a student's journey, defined not just by courses and degrees completed, but around all the skills they have earned, self-attested to, or are on track to achieve. This gives students the insight to apply for positions they may be qualified for—not only bridging the skill gap, but confidence gap as well.

Section 4 – Rewriting the Resume

Applicant tracking systems can seamlessly integrate pieces of information about candidates to make better decisions at every stage of a hiring process (Hall & Cober, 2017) and up to 90% of Fortune 500 companies use applicant tracking systems due to their high volume of job applicants (Gadhavi, 2023). But from the perspective of a job seeker, applicant tracking systems are seen as less fair compared to human only processes, even if the outcome was favorable for the job seeker (Maude Lavanchy, Reichert, Narayanan, & Savani, 2023)—perhaps because as many as 75% of job applications never make it through the application tracking system to be seen by a human (Chase, 2024).

At the heart of this process is the resume, which is how many applicant tracking systems ingest information about an applicant. Like many job applicants, students at University of Phoenix may lack the confidence to apply for a job because of uncertainty of whether their resume is good enough: Interviews with students show that even after convincing themselves that they are ready for a new job, they then sometimes have dread around their resume and if they will make it past the applicant tracking systems. These students are not wrong: Suraj et al. (2019) shows that job applicants can be considered less of a match if they simply did not use the correct industry keywords in their resume, or even if their resume was just not formatted in a way that is correctly scannable by the applicant tracking system. For something as simple as the use of the title engineer rather programmer, or simply indenting a bullet point, a job applicant could be dismissed, and the employer may miss out on great talent.

The product team foresees that University of Phoenix achievements microservice can be a powerful tool to overcome this. Because it contains full records of a learner's skills, every data point can be matched to a single skills taxonomy that is not reliant on the correct usage of keywords in a resume. This also applies to job postings, which can be matched to which students have the identified skills or are close to having those skills. This is all

possible due to the collection of granular skills in the achievements microservice. Skills that students have earned from courses, previous work experience, and other extracurricular activities become immediately relevant, making it easier for talent recruiters to sift through potential candidates as they can be assured that the students that are applying have the identified skills profile in their record of achievements.

The University of Phoenix achievements microservice takes many important steps to increase student confidence to click the apply button and fill out that application for the job posting. This includes displaying a list of skills that the student has earned via university courses or has self-attested that are applicable for that job posting, as well as highlighting that job posting –both to help ensure that a student will see it and to indicate that this job was picked for them based on the skills present in their skill profile. This prompt only shows the skills required if they match the skills the students have, as most won't apply if they are not 100% qualified for a role (Phan, 2022)—and talent recruiters have specifically stated even an 85% match can be enough for a student to be a desirable applicant.

This is one of the strengths of our achievements microservice: It goes beyond what a resume can do to provide a comprehensive understanding of a student's skills, abilities, and achievements that would not otherwise be possible. Use of the microservice encourages students to share the skills they may have, which are stored in a skills profile that is easily updated. The most effective way of doing so is through the use of a tool within the microservice that displays information on different careers or job titles that a student may be interested in, including a list of the top skills associated with them. This gives students visibility into the skills they need, as well as helps them remember skills they may have overlooked in their own experience. With this additional information in their record of achievements, the microservice can continuously provide more relevant job postings.

Spotlight – In the Weeds

The University of Phoenix achievements microservice involves sifting through mountains of data: Every record is comprehensive, and every job posting can be tagged to multiple relevant skills. To parse this, University of Phoenix engineers developed a way to search through these efficiently and quickly using GraphQL, allowing a talent recruiter to see the results in real time.

Moreover, this complex query also highlights what skills are most limiting for a job posting, decreasing the total pool size of potential job candidates that the job posting will be shown to. This allows recruiters to modify the percentage of skills that a student must have in order to be part of the pool, a fine-tuning process to maximize the number of qualified candidates—finding exact records from a mountain of data, all in the blink of an eye.

Section 5 – Achievements In Action

The University of Phoenix achievements microservice has met success in initial experiments utilizing earned and attested skills in a student's collection of achievements to match them to job listings for which they have the identified skills. This began with the first experimental posted job by one of the University's talent recruiters, which was shown to 22 students identified as having the skills needed in their record of achievements. Of those 22 students, more than 31% clicked to apply for the position, and 71% of those that clicked apply sent in their resume to be considered for the job—and 80% of the students that sent in their resume were rated by the talent recruiter rated as a good candidate.

A more recent job posting, also made by a University of Phoenix talent recruiter, saw 27 student views with over 55% clicking to apply via Job Explorer, and 40% of those students sending in their resume. As this tool continues to grow, and as more students and talent recruiters engage with the microservice, these numbers can translate into real world gain and more efficient processes—and most importantly, better outcomes for our students and employer partners.

Conclusion – Facing Forward

As the University of Phoenix achievements microservice grows, the product team's hope is to continue to match students to job listings, as well as help ensure employers find that they are receiving qualified candidates from this process. Confidence in this process can in turn lead to a more robust product with even more potential. There is even a possibility that technological solutions such as the University of Phoenix achievements microservice could completely remove the need for students to submit a resume and fill out an entire job application: A potential solution would show qualified candidates a job posting that allows—because both the applicant and the employer are confident the requisite skills have been captured—the applicant to go straight to scheduling an interview, making the application process smoother.

Not only does this solution offer functionality for immediate concerns, it also lays supports University of the Phoenix efforts to align employers and employees in a skills-based marketplace. It does so through functionality that can support the development of learner employment records (LERs), as well as highlights potential efficiencies and support that LERs can further deliver upon.

While this future is theoretical, the University of Phoenix achievements microservice can continue to collect more employers and job postings, as well as identify new candidates. These comprehensive records of achievements can not only foster an individual's

confidence, but industry confidence in skills-based hiring as a meaningful and effective way to find qualified job candidates—and that University of Phoenix is at the forefront of this new approach to hiring.

Author Bios

As a Senior Product Manager working with the careers teams for 4 years now, Francisco Contreras primarily focuses on the Career Navigator student facing tool, and the Talent Source employer facing tool. Using continuous discovery and delivery practices, he and a team of engineers build and maintain the next generation of career tools. Before this he worked in the IT department for 4 years as a situation manager.

Brandon Edwards has been with the University of Phoenix since 2022 as a full-stack developer for the careers teams where he has focused on developing the Career Navigator. He holds both a Bachelor of Science and a Master of Science in Computer Science from California State University, San Bernardino.

Appendix: Career Product Team

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