

2022 Technology Fee Full Proposal

Title: Enhancing Career Education Through Artificial Intelligence

Proposers: UF Career Connections Center: Ja'Net Glover, Sr. Director; Julia Vollrath, Assoc. Director; Allie Simon, Assoc. Director; Matthew Cowley, Assoc. Director; Rachel Esser, Asst. Director

Contact: Julia Vollrath, J. Wayne Reitz Union, Suite 1300, PO Box 118507, Gainesville, FL 32611; 352-273-2302; juliavollrath@ufl.edu

Sponsoring Organization: UF Career Connections Center

Purpose and Specific Objectives: The University of Florida's Career Connections Center (C3) serves more than 57,000 students and thousands of alumni representing all majors and degree levels. The Center is a centralized, comprehensive unit providing comprehensive career development services to all students at UF. The C3 is requesting funding to launch an online career readiness platform, powered by Quinnia. Quinnia is an interactive artificial intelligence-based solution that provides students with 24/7 access to resume reviews and customized AI practice interviews. The Quinnia system is based on Applicant Tracking Systems (ATS) and artificial intelligence interview systems used by employers, ensuring feedback provided to students is relevant to current industry processes. This platform would aid the C3 in fulfilling the vision for each UF student to have a meaningful career experience while pursuing their degree. It would also allow the Center to provide experience in AI to all students, helping to secure UF's mission to become a leader in artificial intelligence in higher education.

Artificial intelligence assisted technologies, including ATS and interview platforms, provide many benefits for companies during the recruiting process. In a survey by the Michigan State University Collegiate Employment Research Institute (CERI), the primary drivers of their use are efficiency in recruitment staffing and cost savings.¹ While at their core ATS systems track documents through the application process, a widely used component of these systems is resume screening. These artificial intelligence-based systems are trained on job requirements and matching resumes, allowing the ATS to screen out incoming applications that do not align with the posting and to move qualified applications to the next round of review. Artificial intelligence interview systems function in much the same way, with systems reviewing interview content and speech for competencies that match the position. With corporate job postings each attracting an average of 250 applications, the need for such tools is clear.² The adoption of these technologies was expected to expand rapidly between 2025 and 2030; however, COVID-19 protocols have caused a much faster switch than originally anticipated.¹ An increasing number of employers, including 99% of Fortune 500 companies³ and 75% of all US employers⁴, are using AI-based ATS and/or AI interviewing platforms in their hiring processes. Many large online job boards, including ZipRecruiter⁵ and LinkedIn⁶, also use AI to review resumes and applications, and to identify potential candidates for employers. It is critical that students are exposed to and educated on these AI-based systems early, so they are prepared as qualified candidates in the 21st century application process.

In the previously cited survey by CERI, 81% of employers reported the need for campus career centers to educate students on "mastering new digital recruiting arrangements"¹. Quinnia uses machine learning to provide students with direct feedback on resumes and interviewing based on the review and scoring practices common to widely used ATS and AI interview platforms. This resume review process is designed to reduce the number of student resumes that are ultimately rejected by ATS systems due to technical or formatting issues. These rejections often occur when the ATS cannot read the file type submitted or when resume formatting is overly complicated. However, simple formatting choices, such as section headers and column usage, can also cause resume content to be misinterpreted or missed. Quinnia identifies these issues and provides educational context and solutions before students submit these documents to employers that may use ATS screening. The system can also be trained

¹ <https://ceri.msu.edu/recruiting-trends/recruiting-trends-2021-2022.html>

² <https://www.glassdoor.com/employers/blog/50-hr-recruiting-stats-make-think/>

³ <https://www.jobscan.co/blog/99-percent-fortune-500-ats/>

⁴ <https://www.hbs.edu/managing-the-future-of-work/Documents/research/hiddenworkers09032021.pdf>

⁵ https://www.ziprecruiter.com/enterprise_faq

⁶ <https://www.forbes.com/sites/cognitiveworld/2020/07/02/how-ai-is-impacting-operations-at-linkedin/?sh=564802d03a48>

on custom resumes provided by the C3 to ensure alignment with identified best practices, so students receiving assistance through Quinncia will benefit from the same curated expertise as those utilizing in-person services. Quinncia interviews are customized based on each student's industry of interest, providing them with practice answering common questions while also providing feedback on how the interview would be assessed by AI systems. Students will then be better prepared for any interview setting, with a particular understanding of AI interview platforms.

The work of the C3 is at the center of several UF and State of Florida priorities, including the recent House Bill 1261 that requires first-year students to engage in career. With these initiatives comes an increased demand for career services at UF. Quinncia would allow the C3 to scale services to meet these needs by providing students with direct access to resume services that are currently being provided individually by C3 staff. Students can currently complete mock interviews through individual meetings, which are limited in availability, and virtually through Gator CareerLink, which are limited in variety and do not provide feedback. In 2020-2021, staff at the C3 held over 2,500 individual meetings with students for the purposes of resume review or interview preparation. In that time, over 80 presentations on resume and interview topics were conducted by the C3, at the specific request of faculty, UF departments, and student organizations. Quinncia would make resume and interview services accessible to students 24/7 from any location. This tool would act as a first line of service for students, providing basic resume reviews and interview feedback. Since C3 staff would be spending less time on these services, they would have increased capacity for deeper, more meaningful career conversations with students. Workshops and outreach presentations would also be enhanced by providing students with a career action step that they can complete immediately after the program.

University of Florida and C3 stakeholders are increasingly concerned about students' career readiness competencies. Florida House Bill 1507, passed in 2021, highlights the State's focus on preparing students for the workforce. The bill sets requirements for general education courses to help students develop and demonstrate career readiness competencies at the university level. Quinncia would support this effort by improving students' ability to define and express their skills while adding to a comprehensive learning record as evidence of competency attainment. Employers have also recently shown an increasing focus on competencies. A *Harvard Business Review* analysis in 2020 found that employers required over 30% more skills in job postings than in previous years⁷. As employers search for workers with large skillsets, it is critical that students are able to highlight the skills they possess in application documents. Quinncia provides explicit feedback and education to students on the incorporation of these competencies into their resume, with suggestions for improvement. Quinncia also tracks each student's progress over time, including competency achievement and resume improvement. This serves to increase students' awareness of competencies and to insure they are representing their knowledge and skills effectively on resumes and in interviews. The ability to clearly express these skills on a resume is a critical part of the job application process, particularly for employers that use ATS screening processes.

Along with tracking competencies for individual students, Quinncia would provide real-time reporting to the C3 on competencies and resume development of all students, providing insights on difficulties students may face. This could include areas of difficulty on resumes and competencies that many students may be missing. The ability to identify these trends, globally at UF and in specific subsections of students, would allow the C3 to develop tailored programming to address areas in which students may need additional assistance. This knowledge of widely missing competencies could serve as a foundation for workshop development, educational resources, and additional focus on these competencies in one-on-one career discussions. Specific populations could also receive targeted support at the individual or group level based on the competency reporting available.

As UF is poised to become a leader in artificial intelligence, it is important that the C3 is also at the forefront of its use in career services. With the exception of UF, all of the US News & World Report Top 5 Public Universities use AI-based resume review and/or practice interview platforms in career services. Additionally, most (10) of the other SEC universities provide students with AI-based resume review and/or practice interview resources, including 4

⁷ <https://www.shrm.org/hr-today/news/hr-news/Pages/Viewpoint-9-Trends-That-Will-Shape-Work-in-2021-and-Beyond.aspx>

schools that are currently using Quinncia. As career services is a featured area of the newly created SEC Artificial Intelligence Consortium and the UF Artificial Intelligence Academic Initiative Center (AI²), it is critical that the C3 is prepared to fulfill this role. With the integration of AI in career through Quinncia, UF can secure its position as a leader in the field with graduates best prepared to enter the AI-enabled workforce.

Expected outcomes include:

- Increased faculty and staff partnerships by infusing career into the curriculum utilizing AI technology, as measured by the number of courses requiring career-focused assignments
- Increased student access to resume review and mock interview services through increased accessibility of services resulting in increased participation by online and non-traditional students as compared with current C3 appointment and Express Drop-In services
- Enhanced resume and interview services available to students through the integration of machine learning and industry standard review processes into the job and internship search process

Impact/Benefit:

There is an increasing focus on infusing career readiness into the curriculum that has resulted in an increased number of faculty assigning students to seek career services. Currently, these course assignments require students to meet individually with C3 staff for resume review or mock interviews. As the number of such course assignments have increased each year, needs are quickly outpacing the current staffing capacity of the C3. One such course, MMC 1009 Introduction to Media and Communications, requires 400-600 students each year to meet with C3 staff individually for resume reviews. With each resume review taking at least 15 minutes, this course alone demands over 100 hours of C3 staff time each year. Several courses have also begun requiring students to complete mock interviews, including courses in Sociology, Criminology, and Tourism. In the first three months of Spring 2022, these courses sent 90 students to the C3 for mock interview services. Special 15-minute one-on-one mock interview sessions were designated for these courses, meaning these two courses accounted for an over 20 hours of C3 staff time. When staff dedicate time to these assignments, they are unavailable to provide services for students not enrolled in these courses. Scalability of C3 services is required to continue serving a growing number of students completing these career-services related assignments, and to maintain availability for all other students at UF. Faculty currently rely on students to provide proof of career assignment completion, often in the form of a virtual resume review screenshot or a signed paper resume. By assigning tasks in Quinncia to students, faculty would have real-time access to the system to track assignment completion. The implementation of Quinncia would also increase capacity for faculty to incorporate career assignments into the courses as C3 staff resources would no longer be a limiting factor. Quinncia will therefore make way for more courses to incorporate resume preparation and interview practice into their courses, giving more students access to these valuable experiences.

Quinncia could also serve to expand access to the one-credit career course, The Art of Getting Hired, offered by the C3. The course serves upwards of 60 students each semester, with demand outpacing current capacity of C3 staff instructors. The primary factor limiting enrollment is the grading load and accompanying need for feedback from instructors on a major resume assignment. Many students are new to the resume creation process and require a great deal of support in developing a professional document. Student course evaluations consistently reveal that resume support and crafting customized documents is the primary purpose for enrolling the course, particularly for students who have barriers to participating in internships or other meaningful experiences, such as international students, online students, first generation students, and students with other obligations. Quinncia could serve as scaffolding for students in this course, providing feedback before the resume is graded by instructors. By removing some of the burden on staff, the C3 could consider expanding enrollment in the course to accommodate a larger population of students.

In addition to the increase in course assignments, career readiness is at the center of many new and existing initiatives at the University and State levels. At the University level, UF Quest was developed to provide a shared academic experience for all students, preparing them for life after graduation. Quest 3, while still in development, focuses on experiential learning, requiring students to pursue internships, co-ops, or other high-impact

experiences. Many of these experiences have competitive application processes that require students to provide resumes and complete interviews. As this requirement will be rolled out University-wide, there will likely be an increase in demand for resume review and interview preparation services by students seeking sought-after positions. Quinncia would support C3 staff in serving the future of UF by assisting this expanded audience in preparing resumes and practicing interviews, ultimately making them better applicants.

As mentioned previously, the adoption of House Bill 1261 by the Florida legislature requires students to engage with the C3 at the start of their time at UF. New students at the University in Fall 2022 will be given a pathway to connect with career through the Career Prep Process. Currently, students are expected to complete career-related assessments and reflection exercises in their first year at UF. Quinncia would provide an additional option for meaningful engagement for these students, in their first year and beyond, without substantially increasing the demand on individual C3 staff members. The system would also give incoming students exposure to artificial intelligence, preparing them for additional AI education during their college career. Through this technology, new students would be able to track their development at UF, helping them improve their resume and interviewing skills while also supporting their competency development.

The Quinncia platform would also serve as an educational tool for students, bolstering the work of the C3 and faculty. The platform would provide students with exposure to AI technologies commonly used by employers, including educational materials explaining the AI review of resume and interview content. These materials accompany the immediate feedback students receive, insuring relevancy and timeliness to each student's situation. Quinncia feedback and materials also focus on competency development to prepare students to gain and clearly communicate their skills to employers. Faculty members that include Quinncia in courses will also have access to individual and class-level feedback, allowing them to provide additional relevant resources to students.

As the University launches a new Quality Enhancement Plan focused on AI and experiential learning, Quinncia would be an ideal career services solution to provide student support in both areas. The platform would provide new and continuing UF students with resume and interview education and skills needed to secure desired experiential learning experiences and full-time positions after graduation, including those with organizations using AI-assisted hiring technologies. Students would also be exposed to AI during this process, understanding how machine learning informs recruitment processes and how these systems process documents, language, and speech. Quinncia would ultimately serve students by giving them immediate and long-term educational feedback, helping them leave the University prepared to enter the AI-enabled workforce of the 21st century.

Sustainability: The Career Connections Center supports this proposal and has committed to providing ongoing resources, through auxiliary funds, to support the use of Quinncia University-wide after the period of funding provided by the grant. The proposal for the acquisition of Quinncia and C3 efforts in this area are also supported by the Vice President of Student Life.

Timeline: The C3 has worked directly with Quinncia to establish a launch plan to include the first two years of the service. A contract between UF and Quinncia could be initiated upon funding. Once approved by all parties, start-up time needed by Quinncia is approximately three weeks. Staff training within the C3 could begin during this time, with more in-depth training occurring once the system is launched. Training for faculty members with targeted courses would immediately follow. The expected launch date for Quinncia, pending all approvals, is Fall 2022. During the first year, 2022-2023, the platform would be available to 2,200 students, including students from targeted courses who already utilize C3 services for classroom assignments. The platform would remain available to students in these courses during the second year of use, 2023-2024, with an additional 5,500 licenses available for new faculty partnerships across campus.

Budget: Quinncia charges based on the number of user (student) licenses granted. The cost for launch and the first two years of use, based on the student numbers in the rollout timeline above, would be \$65,482. There are no additional start-up or equipment costs.