Are you still interested in the position? Thank you for asking. I am very interested in the position. Pursuing an academic career is a passion of mine, and I find great fulfillment in teaching and conducting research. During my Ph.D., I enjoyed working with young students and colleagues in the field, and it was especially rewarding to see students succeed in their coursework and find employment or internships. I am particularly interested in the Computer Science & Information Technology and Data Science programs offered by Graceland University and the opportunity to study with undergraduate and graduate students. I appreciate the the small class size that allows for close relationships among students and faculties. I look forward to contributing to the department and working with others to advance academic research and education.

Introduce yourself My name is Yong Zhuang, and I earned my Ph.D. in Computer Science from the University of Massachusetts Boston with Dr. Wei Ding. My research interests span a range of topics, including machine learning, big data analysis, feature selection, spatiotemporal data analysis, and time series prediction. Before pursuing my Ph.D., I worked as a software engineer for several years. This experience provided me with a wealth of knowledge in web application design, software development, data management, code design, debugging, and testing, which has been invaluable in my following teaching and research work. In terms of teaching, I have been the instructor for the CS Seminar course for four semesters, where I counsel disadvantaged students in courses such as Theory of Computation, Data Structures, and Algorithms, and helping them succeed. Additionally, I served as a teaching assistant for several courses, including AI, Big Data Analysis, and Introduction to Computing. Throughout my academic career, I have authored multiple conference papers and journal articles in AI, ML, and Data Mining and have participated in two-awarded proposals of my advisor. I have also served as a program committee member for various AI conferences and journals. And participated in NSF panels last year. Additionally, I have industry experience related to machine learning system design. I am excited about the opportunity to bring my skills and experience to the assistant professor position at Graceland University. I am confident that my passion for teaching and research, along with my industry and academic experience, will positively contribute to the department and the university.

What courses would you like to teach? I would like to teach a diverse set of computer science courses at both the undergraduate and graduate levels, including but not limited to data structures, algorithms, programming, web application design, database, AI, and ML. I am also willing to develop new courses, such as the theory of computation, DL, NLP, image processing, big data analytics, and spatiotemporal data analysis. Additionally, I believe it's important to incorporate practical skills into course development, so I am eager to develop hands-on labs and projects that allow students to apply their knowledge in real-world scenarios.

How to deal with various(diverse) student backgrounds? In my CS Seminar class, more than 50% of the students come from non-major backgrounds and have no programming experience. Additionally, some have part-time jobs and cannot be on campus most of the time. My first strategy is to learn about my students' backgrounds asap. During the first week, I assign homework that allows them to introduce themselves. I include questions about their programming experience and the number of hours they work weekly if they have part-time jobs. In the following two weeks, I administer two ungraded quizzes to gauge whether they can keep up. With this information, I can adjust my course schedule to ensure most students don't fall behind. Second, I provide additional support for less-prepared students. For example, I often hold extra review sessions to offer more guidance and equip them with the necessary foundational knowledge. For students who cannot spend much time on campus, I utilize the online discussion section to let them ask questions after class. Lastly, I encourage peer-to-peer learning in the classroom, promoting collaboration and the exchange of diverse perspectives. By assigning group projects, forming study groups, and fostering a supportive learning environment, students can learn from each other and develop essential skills such as communication, problem-solving, and teamwork. This approach has been effective in my course.

What are your reasons for joining us as a faculty member?

1. I really appreciate the core values of Graceland University, embodied in "The Power of Together." Graceland University's student-to-faculty ratio is a mere 15 to 1. The small class sizes are very beneficial for me, as they enable the formation of close relationships with my students and the provision of personalized learning experiences. This aligns perfectly with my teaching philosophy. I believe that mentoring and offering individualized guidance is crucial in fostering future computer science and professionals. 2. During my Ph.D., I worked on a project aimed at predicting heavy rainfall events in the Des Moines River Basin. Interestingly, I have never had the chance to visit Des Moines. Discovering that Graceland University is located in Iowa has increased my interest in this opportunity. I look forward to joining the CSIT department, continuing and expanding my research on predicting heavy rainfall events in the Des Moines River Basin and contributing to the growth and development of the department.

Why do you think you are the best fit for this position With my extensive industry experience as a machine learning engineer and software developer, as well as my academic background in AI, ML, and data mining, I am well-equipped to contribute to the goals of a liberal arts education. By integrating real-world applications and hands-on experiences in the coursework, I can help students foster critical thinking, effective communication, and problem-solving abilities.

What kind of split are you looking for between teaching and research? I believe that teaching and research are equally important aspects of an academic career. In the initial years of my career, I anticipate allocating more time to teaching, as developing curricula and support materials may require additional effort. During this period, I expect to dedicate approximately 80% of my time to teaching and 20% to research. As I become more familiar with teaching and streamline my processes, I plan to balance my time more evenly, with 50% dedicated to teaching and 50% to research. This approach will allow me to excel in both areas and contribute effectively to the academic community.

**Brief Describe your research** My research interests broadly include Machine Learning, Big Data Analysis, Feature Selection, Spatio-temporal Data Analysis, Time Series Prediction. (I have published five peer-reviewed full papers in these areas.)

Feature Selection on Big Spatio-temporal Data: I collaborated with scientists in the Department of Civil and Environmental Engineering at Tufts University to design a new multiple-Markov-boundary-based Feature Selection algorithm, Galaxy(ICBK2018), for long lead extreme precipitation forecasting.

Deep Learning on Big Spatio-temporal Data: I collaborated with scientists in the School of Criminology and Justice Studies at UMASS Lowell to design a Spatio-temporal recurrent neural network to forecast crime hot spots(ICBK2017).

Time series prediction in a chaotic system: I develop a new recurrent neural network architecture (Error Trajectory Tracing) to track the trajectory of the prediction error through the phase space, and a new training strategy (Horizon Forcing) to expand the prediction horizon of time series(by more than 20

**You questions** What is the timeline for this searching? What is the teaching load for new faculty members? How many students are in CSIT department? Is there any strategic(/strtikl/) plan for the department? For example, in 5 years or 10 years. Is there any special services required for faculty members?