# Recommendation Letter for Alice Lin

June 14, 2016

Prof. Niamh O'Leary, Chair
CS Search Committee
Wells College

Dear Prof. O'Leary:

Please accept this letter as my strong recommendation for Dr. Alice Lin who is applying for an Assistant Professor position at Wells College.

I have known Dr. Lin for seventeen years, from 1999 until present. Her relationship with me includes: taking several graduate courses from me, doing dissertation research with me, working as an RA for me, writing an MS project and a PhD thesis under my direction, and doing joint research with me after her PhD. I am confident that I possess enough knowledge to provide significant insight into Dr. Lin's research and teaching capability. In the following, I comment on Alice's teaching first.

Dr. Lin has worked as a teaching assistant (TA) for a period of time when she was pursuing her PhD at the University of Kentucky. She was a very hardworking and popular TA. According to what I heard from the Director of Undergraduate Studies, the responses for her cases were always extremely positive from both the faculty members and the students.

After her PhD, she joined the Marshall University as an Assistant Professor in computer science and has worked there for the past three years. Her teaching career at Marshall is extremely successful. First, Alice can share with her students many hands-on experience and techniques not too many people can afford to offer. Why? Alice has worked as a software engineer for several years, participated in developing computer software that managed DNA data and analyzed DNA sequencing information, designed and implemented essential components of the user interface of an interactive 3D display system, and performed creative computer-aided design works. She has also developed web sites (both in code and graphic) and graphic advertisements. She has skills in Web development (HTML, ASP, JSP, CSS, PHP, Dreamweaver, Fireworks, Flash, FrontPage, etc.), and tools for Web development (Adobe PhotoShop, Adobe Illustrator, CorelDRAW, Adobe after effect, etc.). She has extensive knowledge of programming and scripting languages, such as C, C++, Visual C++, Java, OpenGL, JavaScript, Perl, Python. So even though her students at the Marshall University are diverse and have

varying degrees of experience in computer science, Alice is able to meet each individual student's technical needs and help students with different technical strength. The students appreciate her hands-on capability very much.

Second, Alice is a very dedicated person and goes above and beyond in educating her students. She spent many hours outside of class teaching and reviewing course materials with students to ensure that they understand the materials. I have not seen this level of dedication in other professors that I have worked with in the past. Her students at Marshall trust her very much because they know that she will always be there for them and, most importantly, she can always answer their questions, no matter if the questions are theoretical questions or technical questions.

As far as your third question is concerned, Alice definitely is the right person to overhaul and update the computer science program at Wells College. Alice has taught all the Computer Game Design and Development courses and most of the general computer science (CS) courses at Marshall. So she knows both the advanced applications and basic training of CS. She has advised many undergraduate students' independent studies and senior projects. So she knows how should the high-level portion of a CS program be managed. She has designed and revised the curricula for several Computer Game Design related courses at Marshall and has worked to increase the enrollment and visibility of Marshall's CS program. So she knows how to update a CS program and how to lead a CS program to a higher level.

However, to provide leadership to a CS program, a person must also have vision for the program.

Alice's research covers several areas: 3D computer animation and simulation, 3D computer modeling and algorithms, computer aided geometric design, computer graphics, image processing, visualization, virtual reality, game design and development, and statistics. Her dissertation focuses on 3D modeling and animation of facial expressions. The techniques developed by her find applications in many areas, such as 3D games, interactive human/computer software, and movies. She has also conducted research in computer security. One of her papers in this area is titled "A Free Drawing Graphical Password Scheme" where a novel method is developed to freely draw a graphical password. Her recent work includes designing and developing prototype educational games that can be used to train health professionals while entertaining them. She has conducted research in developing a system to monitor latent risk populations who encounter emergency situations on a frequent basis. The technology is aimed both at healthy individuals as well as those with disabilities and chronic conditions.

With her strong research record (one book, sixteen papers in popular application areas) and her experience at Marshall, Alice can definitely provide Wells College's CS program with a vision and

build a stronger CS program for Wells College with popular areas such as Game Development, Computer Animation, Computer Graphics, and Web Programming.

In summary, Dr. Lin is a very strong candidate for the position in your college and I have strong confidence that she will do an excellent job for that position. I wholeheartedly recommend her to your committee without any reservations. If you have any questions on the above information provided by me, please send me email before 7/15/2016. After that, you may also call me at: 859-257-6760.

Sincerely,

Fuhua (Frank) Cheng, PhD
Professor of Computer Science
University of Kentucky