

**California State University San Bernardino  
School of Computer Science & Engineering  
Masters Project Presentation**

**Date/Time**

**December 10, 2021 (Friday)/2:30PM**

**Location**

**<https://csusb.zoom.us/j/87186243292>**

**Topic**

**Learn Programming In Virtual Reality? A Case Study of Computer Science Students**

**Candidate**

**Benjamin Alexander**

**Advisor**

**Dr. Yunfei Hou**

**Committee Members**

**Dr. Jennifer Jin**

**Dr. Bilal Khan**

**Abstract**

This presentation introduces the development of a new learning platform in Virtual Reality to create a more immersive and intuitive learning experience for introduction of programming courses at an intermediate level. This platform is designed to create a central hub for interactive courseware and facilitate distance learning in our post COVID world. Utilizing Virtual Reality, the application teaches specific topics in Computer Science using scripted animations, tutorials, and interactive games. A pilot study was conducted to evaluate the user experience and learning outcomes. Participants of this study reported they were more engaged and motivated in learning programming concepts. We found the virtual learning modules helped to explain abstract concepts and provided better hands-on experiences.