THOMAS
BARTLETT

Email: tbartl@umich.edu
Phone: (248) 982-7827
Address: 25708 Island Lake Drive, Novi MI, 48374
Portfolio: tbartl.github.io

EDUCATION

University of Michigan, Ann Arbor, MI   *Bachelor of Science, Computer Science - Engineering GPA: 3.41*   Dec. 2017
Novi High School, Novi, MI   *National AP Scholar with Distinction, Summa Cum Laude GPA: 3.98*   May 2014

COMPUTER SCIENCE COURSEWORK

Programming & Data Structures	Computer Security	Advanced Object Oriented Programming
Data Structures & Algorithms	Operating Systems	Distributed Systems Agile Web Development
Software Engineering	Computer Game Design	Artificial Intelligence Music Signal Processing

COMPUTER SKILLS

Languages: C++, C#, Java, Python, JavaScript, Go, MATLAB, Cg/HLSL
Applications: Visual Studio, Git, Unity, Node, Flask, Photoshop, Maya, Premiere

WORK EXPERIENCE

Autodesk, Novi, MI   ***Software Development Intern, Translation Framework Team***   June – August 2016/2017
Designed, developed, tested and debugged software components on a scrum based software development team to expand Autodesk's 3D data translation capabilities. During my first summer I made improvements to the efficiency and flexibility of ATF's testing environment with a Pluggable Test Format system (see PROJECTS below). During my second summer I prototyped and developed a web application, ATF Cloud (see PROJECTS below), to run Autodesk's translation service in browser. Position required proficiency with object oriented programming and practical knowledge of 3D computer graphics.

EECS 494: Game Design & Development, Ann Arbor, MI   ***Instructional Aide***   August 2017 – Present
Created course materials, developed tools, led workshops, graded, and held office hours for EECS 494: Game Design and Development, an upper level CS course with ~60 students.

Digital Media Commons, Ann Arbor, MI   ***Emerging Technologies Consultant***   March 2015 – Present
Software engineering responsibilities included the design and development of software for the **CCA Project** (see PROJECTS below). Systems administration responsibilities involved collaboration with team of technical specialists to upgrade and maintain software and hardware on 120 workstations in multiple lab environments across campus. Position required software development proficiency, troubleshooting skills, and familiarity with computer graphics, video, and audio platforms.

PROJECTS

—— *Read full project descriptions, watch videos, and get source code at my portfolio listed above* ——
Pluggable Test Formats: Designed and implemented a system to dynamically recognize file formats within the Autodesk Translation Framework component. In total 16 file formats were overhauled for improved flexibility including standard formats such as OBJ and XML and newer formats such as 3MF and Autodesk Stingray.
ATF Cloud: Built a web application to allow users to leverage Autodesk's translation services without having to download a desktop application. The front end was built with HTML/CSS/JavaScript and Angular while the back end used NodeJS and Autodesk Forge. By the end of my internship ATF Cloud supported 15 different formats with over 400 settings.
The CCA Project: Led a multidisciplinary team of nine to create an interactive installation where users are surrounded by a five-panel projector system they can interact with using their smartphones. This involved the game itself built in Unity for its 3D capabilities, the projection mapping system built in TouchDesigner, and a system to allow users to connect with their smartphone's browser using the AirConsole extension.
FlipSide, WTLDT, CloudChaser, and WaveDasher: Worked on a team of four to develop an original game in a 48 hours for one of WolverineSoft's Game Jams. Each of these games won first place over ~8 other teams.

ACTIVITIES

Wolverine Soft (Game Design and Development Club) – President
University of Michigan Marching Band – Performance Block