Benjamin Bartschi

702-703-9209 | <u>bartschi@mit.edu</u> | <u>linkedin</u> | portfolio

EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

B.S. Computer Science (GPA 4.7/5.0), Concentration in Film/Games/Interactive Media

Aug. 2018 - Present

• Relevant coursework: Computer Graphics, Software Construction, Web Programming, Discrete Math, Linear Algebra, Design Studio, Imaging Lab, Video Media, 3D Printing

EXPERIENCE

Unity App Developer

June 2019 – Present

MIT Virtual Experience Lab & CEE Department

Cambridge, MA

- Built and released a custom field guide app for MIT research teams in Italy
- Created procedural models and animations for informational 3D diagrams
- 3D scanned cultural heritage artifacts and developed an automated LODs system for their AR integration

Computer Graphics Researcher

May 2020 – July 2020

Advanced 3D Graphics Lab, Brigham Young University

Provo, UT

• Implemented core methods (C++) for a custom Houdini SOP used for art directing smoke simulations

Technical Researcher

June 2019 - Sept. 2019

Conservation Law Foundation

Boston, MA

- Increased the speed of walkability assessments by optimizing routes with Python and Google APIs
- Developed training materials for communities to engage with residents about affordable housing crises

PROJECTS

ONE-MA³ Field Guide | Unity/C#, Blender | project link

June 2020 – Aug. 2020

- Designed and built a real-time 3D tool to teach students about Ancient Roman engineering technologies
- Modeled, textured, and integrated 20+ unique objects in Blender used in the visualizations
- Implemented procedural animations and touch-based user interactions

colorfly | React, HTML/CSS, MongoDB | site link

Jan. 2020

- Developed a generative art web app in React with database storage, a login system, and dynamic content
- Implemented an interactive HTML canvas to allow users of all skill levels to create unique art
- Semifinalist in MIT's web.lab programming competition

Castello AR | Unity/C#, Blender, Python, Metashape | project link

Sept. 2019 – Nov. 2019

- Created an Android AR app in Unity for experiencing Ancient Roman archaeological sites remotely
- Collected drone footage and processed 3D models in Blender and Metashape
- Implemented Python scripts for baking model textures and decimating meshes

TECHNICAL SKILLS AND INTERESTS

Languages: Java, Python, C/C++, C#, JavaScript, HTML/CSS, MATLAB

Software: Blender, 3DSMax, Unity, Houdini, SolidWorks, Photoshop, Illustrator, AfterEffects **Hobbies**: Photography, videography, a cappella singing, weight-lifting, knitting, 3D printing