EMILY VO

DEVELOPER • DESIGNER

A student who loves to work with smart people on hard problems, and who is interested in all technology that changes how we experience and share visual information, entertainment, gaming, and the arts.

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EDUCATION

University of Pennsylvania • School of Engineering and Applied Science
Pursuing a B.S.E. in Computer Science
Exp. Graduation: May 2018

RELEVANT COURSEWORK

- Data Structures and Algorithms
- Introduction to Computer Graphics
- Computer Animation: Algorithms and Techniques
- Mathematical Foundations of Computer Science
- Introduction to Computer Systems
- Principles of Digital Design
- Introduction to 3D Modeling
- Multivariate Calc., Linear Algebra, Differential Equations

WORK EXPERIENCE

ANALYTICAL GRAPHICS, INC.

SUMMER 2016 SOFTWARE INTERN

- Wrote volumetric unit tests for STK (Systems Tool Kit) and Scalability extension
- Refactored STK tests to use Google Test framework
- Designed and developed a simulation library to stress test a web monitoring app that displays machines and processes involved in parallel computations
- Created a client application that uses the command design pattern to create simulations on the web monitoring app through XML configuration

SIEMENS, ELECTRONICS R&D

SUMMER 2015 SOFTWARE INTERN

- Created firmware checking application for Siemens electronic meters
- Configured automated test suite for meters to use a different relay controller using TCP/IP socket programming
- Assisted in the development of Siemens Electric Car Charger consumer app
- Created a bootlog error checking application for Siemens Wifi module

PROJECTS

- **Procedural Building Floorplans** • *Summer 2016, Independent, Ongoing* • Procedurally generated floor plans of buildings, implemented polygon union based on the Greiner-Hormann Polygon Clipping Algorithm • C#
- **ColorVR** • *Fall 2016, HackMIT* • A 3D Coloring Book app for Google Daydream • C#, Unity • Won HackMIT 2016's Google Cardboard Development Prize
- **Cityscape** • *Fall 2016, PennApps XIV* • An aesthetic virtual reality experience of an infinite, procedural city designed for Google Cardboard • C#, Unity
- **Mini Minecraft** • *Spring 2016, Coursework* • An implementation Minecraft from scratch with octree acceleration structure and visualization, physics, player controls with raytracing, procedural weather generation • OpenGL and C++
- **Wikipedia Search Engine** • *Spring 2016, Coursework* • Created a graph of Simple Wikipedia's pages and their outbound links, various graph algorithms were implemented to observe various real-world applications, such as page rank, centrality, and search ranking • Java

SKILLS

- Test Driven Development, Digital Circuit Design, OpenGL, Unity, C++, C#, MongoDB, Java, Autodesk Maya, Adobe Creative Suite, Fine Arts, VHDL

HONORS AND AWARDS

- HackMIT 2016: Google Cardboard Development Prize
  - Awarded to "ColorVR" project
- 2015 Electrical and Systems Engineering Senior Design: Freshman Mentor Program's Best Mentor Team Award
  - Worked as a mentee to the 2015 ESE Department's Best Senior project, APRo (Application Based Robot)
  - Award was for the team whose mentee was the most enthusiastic, inspired, and motivated