Margaret E. **Dorsey**

Code · Math · Graphics

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Education

Rochester Institute of Technology

Rochester, NY

Game Design and Development, B.S. — Computational Mathematics B.S.

Fall 2014 - Present

Computer Science, Minor — Japanese Language, Minor

GPA: 4.0

Expected Graduation: May 2018

Budapest Semesters in Mathematics

Budapest, Hungary

Study Abroad

Summer 2016

Coursework and Knowledge

Languages and APIs	C/C++, Java, HTML, CSS, Javascript/JQuery, OpenGL 4.5, DirectX11, MIPS Assembly, LaTeX
Mathematics	Multivariable and Vector Calculus, Differential Equations, Linear Algebra, Discrete Math and Number Theory, Real Analysis and Measure Theory, Geometric Algebra, Numerical Analysis
Computer Science	Computer Architecture and Organization, Networks and Network Programming, Graphics Programming, Parallel and Distributed Computing, Algorithm Analysis, Systems and Optimization

Experience and Projects

OpenGL and DirectX11

Rochester Institute of Technology

Graphics Engines

Ongoing

Working on from scratch rendering engines in DirectX11 and OpenGL 4.5, with an eye towards incorporating them into a larger personal engine in the future.

IGM Department

Rochester, NY

Grand Strategy RPGs

Fall 2014 - Present

Part of a team that designs and runs grand strategy role playing games for the IGM department students.

Global Game Jam

Rochester, NY

Global Game Jam 2016

January 2016

Led a team of six in the production of an infinite platformer game in Unity Engine over 48 continuous hours. Handled program architecture, documentation, source control, and the majority of back end code.

Mathematics Department

Rochester Institute of Technology

Undergraduate Research

June 2015 - December 2015

Researched the application of Lie Groups of symmetry transformations to ordinary and partial differential equations, as well as variational problems.

Crashtest Games

IGM Affiliated Club

President

Fall 2014 - Present

A club dedicated to the analysis, testing, iteration, and refinement of student, faculty, and professional games, both analog and digital.