Annie T. **Dai**

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Education

Dartmouth College   *Hanover, NH*

M.S. in Computer Science with a Concentration in Digital Arts   *Sept. 2016 - PRESENT*

- Won the Dartmouth Rendering Competition 2017 supported by Activision.

Northeastern University   *Boston, MA*

B.S. in Mathematics, Minor in Computer Science   *Sept. 2010 - May 2015*

- Graduated as a honors student in Mathematics department.

Experience

Computational Fabrication - String Art   *Hanover, NH*

Thesis Research   *Jan. 2018 - PRESENT*

- Generated the string layout to wrap around a set of nails in order to achieve the target representation.
- Solved the linear least-squares problem and quantified the solution to integer numbers.
- Planned robot motion to wrap the strings.

React Games   *Salt Lake City, UT*

Training and Internship   *Nov. 2016 - Dec. 2016*

- Made 3D models in Maya and ZBrush for games.
- Textured models using Quixel DDO.

Individual Undergrad Research in NEU   *Boston, MA*

Individual Research: Quantitative Thermo-acoustics Tomography   *Sept. 2014 - May 2015*

- Created a computational model to reconstruct image from a raw data.
- Tested the performance of the model in a numerical experiments.
- Presented the result at Hudson River Undergraduate Mathematical Conference 2015.

REU Summer Research Program in UMBC   *Baltimore, MD*

Group Research: Modeling the Building Blocks of the Pancreatic Islet   *June 2014 - Aug. 2014*

- Simulated islet cells' activity using a computational model and compared with experimental result.
- Varied the geometries and proportions of the cells in this islet with the model.
- Presented the model to client in National Institutes of Health
- Published in UMBC Review:Journal of Undergraduate Research .

Gottex Fund Management   *Boston, Massachusetts*

Internship   *Feb. 2014 - May 2014*

- Simulated the performance of hedge fund industry through an weighted factor model.
- Analyzed historical data of yield curve and its relationship with equity marker to predict the performance of market during increased interest rate.
- Updated past research result with recent data and optimized the math model that used in research.

Skill

Programming	Java, JavaScript, HTML, C++, Python, LaTeX
Software	Maya, ZBrush, MATLAB, Visual Studio, Android Studio, Microsoft Office
Coursework	Computational Photography, 3D Modeling, Computer Animation, Human-Computer Interaction, Rendering Algorithm, Smartphone Programming, Web Development, Machine Learning, Linear Algebra, Probability and Statistics
Languages	Chinese, English