

Timothy R. Langlois

education Ph.D. Candidate, Computer Science, Cornell University, 2011–Present.

Advised by Doug James

Courses: Computational Fluid Dynamics • Computational Motion • Nonlinear Finite Element Methods • Dynamical Systems • Sparse Matrix Computations • Realistic Image Synthesis • Partial Differential Equations • Operating Systems • Programming Languages and Logics • Analysis of Algorithms

B.S., Computer Systems Engineering, University of Massachusetts Amherst, 2009.

Summa Cum Laude

Double major in Computer Science

research interests Computer Graphics • Computational Physics • Acoustics • Scientific Computing

publications *Conference and Journal Articles*

Timothy R. Langlois, Changxi Zheng, and Doug L. James. “[Toward Animating Water with Complex Acoustic Bubbles](#).” *ACM Transactions on Graphics (SIGGRAPH 2016)*. 35(4), July, 2016.

Timothy R. Langlois, Steven S. An, Kelvin K. Jin, and Doug L. James. “[Eigenmode Compression for Modal Sound Models](#).” *ACM Transactions on Graphics (SIGGRAPH 2014)*. 33(4), August, 2014.

Timothy R. Langlois and Doug L. James. “[Inverse-Foley Animation: Synchronizing rigid-body motions to sound](#).” *ACM Transactions on Graphics (SIGGRAPH 2014)*. 33(4), August, 2014.

Timothy R. Langlois, Ramgopal R. Mettu, and Richard W. Vachet. “[Protein Identification Using Receptor Arrays and Mass Spectrometry](#).” *Advances in Computational Biology*, Springer Advances in Experimental Medicine and Biology Series. 680, 343–351, 2010.

Patents

Srinivas Ravela, William J. Dupree, Timothy R. Langlois, Marilyn M. Wolfson, and Christopher M. Yang. “[Method and apparatus for generating a forecast weather image](#).” U.S. Patent No. 8,625,840. 7 Jan. 2014.

experience Research Scientist: Adobe Research Creative Technologies Lab, 2016–Present.

Research Intern: Disney Research Boston, 2015 (summer).

Software Engineer: MIT Lincoln Laboratory, 2009–2011.

Developed distributed, real-time weather prediction algorithms.

Software Engineering Intern: Raytheon, 2008 (summer).

Software Engineering Intern: DEKA Research and Development, 2006–2008 (summers/winters).

Developed software for embedded systems on various medical devices.

teaching Teaching Assistant: Physically Based Animation (CS5643), Cornell University, 2015.

Teaching Assistant: Introduction to Computer Graphics (CS4620), Cornell University, 2013.

service Reviewer: ACM SIGGRAPH • ACM SIGGRAPH Asia • ACM Transactions on Networking Organizer: Cornell Computer Science Student Brown Bag Seminar, 2013–2015.

Organized weekly presentations on current research by graduate students.

Volunteer: Expand Your Horizons, 2012.

Co-organized an educational workshop for middle-school students.

grants
& awards

Recipient: National Science Foundation, Graduate Research Fellowship, 2012–2016.