CURRICULUM VITAE: YUE SUN

Harvard University
School of Engineering and Applied Sciences
Cambridge, MA 02138

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http://sun-yue.com/

EDUCATION

Harvard University — 2020 – present
Ph.D. Student in Applied Mathematics
Advisor: Professor Chris H. Rycroft

Harvard University — 2018 – 2020
M.E. in Computational Science and Engineering
Advisor: Professor Chris H. Rycroft
Thesis: *A lattice Boltzmann implementation of the reference map technique*

New York University Shanghai — 2014 – 2018
B.S. in Mathematics, *Magna Cum Laude*
Minors in Interactive Media Arts, Urban Design and Architecture Studies

RESEARCH INTERESTS

Broadly: computational fluid dynamics, scientific computing, computer graphics, physics-based animation

Specifically: reference map technique, lattice Boltzmann method, aesthetic visualization of fluid simulation;
numerical methods for material mechanics: fluid–structure interaction;
high performance computing in physical system simulation: soft sedimentation, large-scale parallelization;
mechanical modeling of biological systems: microswimmers locomotion, active fluid model, collective motion

PROFESSIONAL EXPERIENCE

Activision / Raven Software — Middleton, WI
Technical Animation Intern, game credit:"Call of Duty: Black Ops Cold War" — Summer 2020
Technical Animation Intern, game credit:"Call of Duty: Modern Warfare" — Summer 2019

Pearl Studio (formerly Oriental DreamWorks) — Shanghai, China
Production Education Intern — Summer 2016

PRESENTATIONS

APS Division of Fluid Dynamics Annual Meeting, Phoenix, AZ — November 21-23, 2021
Oral presentation: *A fully Eulerian lattice Boltzmann simulation of multi-soft-body fluid–structure interaction*
Gallery of Fluid Motion: *Settling down: simulations of soft immersed rods with the reference map technique*

SIAM Annual Meeting, Virtual — July 19-23, 2021
CP5 Applied Mathematics session chair
Contributed talk: *A lattice Boltzmann implementation of the reference map technique for fluid–structure interaction*

APS March Meeting, Virtual — March 15-19, 2021
Oral presentation: *A lattice Boltzmann based reference map technique for fluid–structure interaction*

Harvard IACS ComputeFest, Cambridge, MA — January 21-24, 2020
Workshop co-organizer: *From Notebook to the Cloud Workshops*

TEACHING EXPERIENCE

Harvard University — Teaching Fellow
AM 205: Advanced Scientific Computing: Numerical Methods I (graduate) — Fall 2021
ES 123†: Introduction to Fluid Mechanics and Transport Processes — Spring 2020
AM 205: Advanced Scientific Computing: Numerical Methods I (graduate) — Fall 2019

New York University Shanghai — Teaching Fellow
SOCS-SHU 100: Public Speaking in a Leadership Context — Fall 2017

AWARDS AND SCHOLARSHIPS

David B. Heller Innovation Fund Fellowship — 2020 – 2021
Harvard John A. Paulson School of Engineering and Applied Sciences

Special Commendation Extraordinary Teaching in Extraordinary Times† — 2020
Harvard College Office of Undergraduate Education

Certificate of Special Distinction in Teaching† — 2020
Harvard Institute for Applied Computational Science

IACS Student Scholarship — 2019 – 2020
Harvard Institute for Applied Computational Science

Phi Beta Kappa Society — 2018
Beta Chapter of New York (New York University)

HiTime Global Scholar — 2016 – 2017
New York University Shanghai

Deans' Undergraduate Research Fund — 2016
New York University Shanghai

SKILLS

Languages: C++, Python, LaTeX, MATLAB, Mathematica, JavaScript, C#, Processing
Applications: Maya, Unity3D, Arduino, Adobe After Effects / Premiere / Photoshop / Illustrator
Technologies: OpenMP, Maya API, OpenGL, p5.js, Git, Perforce, gnuplot, PySide, PS4 Dev Tools