ANDY THAI, PH.D.

Updated: September 4, 2025
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RESEARCH OBJECTIVE

Ph.D. in Computer Science, seeking to leverage research and work experience to undertake opportunities in **biomedical applications using techniques in computer graphics, geometric processing, image processing, visualization, and animation**.

EDUCATION

Sep 2018 - Sep 2025	**University of California, Irvine**, Irvine, CA Donald Bren School of Informatics and Computer Sciences Ph.D. Computer Science Advanced to Candidacy: December 2023 Dissertation: *Geometric and Numerical Algorithms for Biomedical and Neural Visual Data Processing* Completed Defense: August 2025 Advisor: Prof. Gopi Meenakshisundaram
Sep 2018 - Jun 2020	**University of California, Irvine**, Irvine, CA Donald Bren School of Informatics and Computer Sciences M.S. Computer Science Advisor: Prof. Gopi Meenakshisundaram
Sep 2014 - Jun 2018	**University of California, San Diego**, La Jolla, CA Department of Mathematics Department of Cognitive Science B.S. Mathematics-Computer Science B.S. Cognitive Science with Specialization in Human-Computer Interaction

EMPLOYMENT

Sep 2018 - Sep 2025	**University of California, Irvine**, Irvine, CA Graduate Student Researcher – Department of Computer Science Interactive Graphics & Visualization Lab (iGravi), Xu Lab Principal Investigators: Gopi Meenakshisundaram, Xiangmin Xu
Sep 2018 - Jun 2024	**University of California, Irvine**, Irvine, CA Graduate Teaching Assistant – Department of Computer Science
Jun 2021 - Sep 2021	**University of California, Irvine**, Irvine, CA DTEI Graduate Fellow – Graduate Division
Feb 2019 - Jun 2021	**University of California, Irvine**, Irvine, CA Leadership Coach – Graduate Division, DECADE PLUS
Dec 2015 - Sep 2018	**University of California, San Diego**, La Jolla, CA

Research Assistant – Department of Cognitive Science
Chiba Lab, Principal Investigator: Andrea Chiba

Sep 2015 - Jun 2016 — **University of California, San Diego**, La Jolla, CA
Office & Supplies Manager – Retirement Association

2014, 2015 — **Math Enrichment**, Palo Alto, CA
Teaching Assistant

PUBLICATIONS

Journal Publications

J4. Eric Velazquez-Rivera, Oyshi Dey, Nayoon S. Kim, Wenhao Cao, Qiao Ye, Pan Gao, **Andy Thai**, Jason K. Nguyen, Hai Zhang, Jonathan T. Ting, M. Gopi, Bing Ren, Todd C. Holmes, Xiangmin Xu.
Specific targeting of brain endothelial cells using enhancer AAV vectors.
Neuron, Volume 113, Issue 10, 2025, Pages 1562-1578.e6, ISSN 0896-6273, https://doi.org/10.1016/j.neuron.2025.03.031.

J3. Atchuth Naveen Chilaparasetti, **Andy Thai**, Pan Gao, Xiangmin Xu, M. Gopi.
RegBoost: Enhancing mouse brain image registration using geometric priors and Laplacian interpolation.
NeuroImage, Volume 305, 2025, 120981, ISSN 1053-8119, https://doi.org/10.1016/j.neuroimage.2024.120981.

J2. Yunyan Ding, Yicong Huang, Pan Gao, **Andy Thai**, Atchuth Chilaparasetti, M. Gopi, Xiangmin Xu, Chen Li.
Brain image data processing using collaborative data workflows on Texera.
Frontiers in Neural Circuits, Jul 9; Volume 18-2024, ISSN 1662-5110, https://doi.org/10.3389/fncir.2024.1398884

J1. **Andy Thai**, Irmina Gradus-Pizlo, Zygmunt Pizlo, Hakan Sahin, M. Gopi.
Automatic segmentation and implicit surface representation of dynamic cardiac data.
The Visual Computer. 40(7) 4869-4883, 2024, https://doi.org/10.1007/s00371-024-03486-0

PRESENTED WORK

Posters

P2. Yunyan Ding, Yicong Huang, Pan Gao, Atchuth Naveen Chilaparasetti, **Andy Thai**, Gopi Meenakshisundaram, Xiangmin Xu, Chen Li.
Large-scale Whole Mouse Brain Image Data Processing Using Collaborative Data Workflows on Texera. *Structure, Function and Development of Neural Circuits*, 2023

P1. Marcelo Aguilar-Rivera, Emmanuel Gygi, **Andy Thai**, Jumpei Matsumoto, Hisao Nishijo, Todd Coleman, Laleh Quinn, Andrea Chiba.
Real-time tools for the classification of social behavior and correlated brain activity in rodents. *Society for Neuroscience*, In Program No. 520.03, 2018

Presentations

T4. *Automatic segmentation and implicit surface representation of dynamic cardiac data.* CGI 2024, Geneva, Switzerland, July 2024 (Same as J1.)

T3. *RUBI-PAL Robotics.* Contextual Robotics Institute Forum: Healthcare Robotics, La Jolla, CA, November 2018

T2. *RUBI-PAL Robotics*. Contextual Robotics Institute Forum: Healthcare Robotics, La Jolla, CA, November 2017

T1. *RUBI-PAL Robotics*. UCSD Innovation Night, La Jolla, CA, November 2017

AWARDS AND HONORS

A7. CS Department Travel Award, UCI, 2024.

A6. DTEI Graduate Fellowship, UCI, 2021.

A5. Dean's Award Fellowship, UCI, 2018.

A4. Student Foundation Scholarship, UCSD, 2017.

A3. Darcy & Robert Bingham Scholarship, UCSD, 2015.

A2. Provost Honors, UCSD, 2014 - 2018.

A1. Chancellor's Scholarship, UCSD, 2014.

TEACHING

University of California, Irvine

Mar 2024 - Jun 2024 — Teaching Assistant
ICS 6N: Linear Algebra. Spring 2024.

Jan 2024 - Mar 2024 — Reader
ICS 6N: Linear Algebra. Winter 2024.

Mar 2023 - Jun 2023 — Teaching Assistant
ICS 6N: Linear Algebra. Spring 2023.

Sep 2022 - Dec 2022 — Teaching Assistant
ICS 6N: Linear Algebra. Fall 2022.

Jan 2022 - Jun 2022 — Teaching Assistant
ICS 6N: Linear Algebra. Winter 2022 - Spring 2022.

Sep 2021 - Dec 2021 — Teaching Assistant
ICS 33: Intermediate Programming. Fall 2021.

Jun 2021 - Aug 2021 — DTEI Fellow
ICS 6N: Linear Algebra. Summer Session 2021.

Jan 2021 - Jun 2021	Teaching Assistant ICS 6N: Linear Algebra. Winter 2021 - Spring 2021.
Sep 2020 - Dec 2020	Teaching Assistant ICS 32A: Programming w/ Software Libraries. Fall 2020.
Sep 2019 - Jun 2020	Teaching Assistant ICS 6N: Linear Algebra. Fall 2019 - Spring 2020.
Jun 2019 - Aug 2019	Teaching Assistant ICS 33: Intermediate Programming. Summer Session 2019.
Mar 2019 - Jun 2019	Reader ICS 45C: Programming in C++ as a Second Language. Spring 2019.
Jan 2019 - Mar 2019	Teaching Assistant ICS 32: Programming w/ Software Libraries. Winter 2019.
Sep 2018 - Dec 2018	Teaching Assistant ICS 33: Intermediate Programming. Fall 2018.

University of California, San Diego

Jan 2018 - Mar 2018	Instructional Assistant COGS 189: Brain-Computing Interfaces. Winter 2018.

Palo Alto Math Enrichment

May 2015 - Jul 2015	Teaching Assistant Common Core State Standards, Mathematics and Language Arts.
May 2014 - Jul 2014	Teaching Assistant Algebra 2.

OUTREACH

Articles

Nov 2018	**Thai, A**. CS in C.S. *Chancellor's Scholar's Journal*, p. 8-9.

Professional Service & Leadership

Jul 2024	Session Chair CGI 2024
Jan 2024	Invited Panelist ACSP Computer Science Post-Graduate Options Panel, UCSD
Jan 2023	Invited Panelist ACSP Computer Science Post-Graduate Options Panel, UCSD
Aug 2022	Invited Panelist Cal-Bridge Students Panel, UCI
Jan 2022	Invited Panelist ACSP Computer Science Post-Graduate Options Panel, UCSD
Oct 2021	Invited Panelist ACSP Computer Science Post-Graduate Options Panel, UCSD
Feb 2021	Invited Panelist CSP Alumni Q&A Panel, UCSD

2019 - 2021	Leadership Coach DECADE PLUS, UCI
2017 - 2018	Newsletter Writer Chancellor's Scholars Program, UCSD
2017 - 2018	Vice-President Chancellor's Scholars Alliance, UCSD
2015 - 2018	Peer Mentor Chancellor's Scholars Program, UCSD
2015 - 2017	Webmaster & Communications Chair Chancellor's Scholars Alliance, UCSD
2015	Section Director Sixth College ComicCon, UCSD
2014 - 2015	Overnight Stay Program Board Coordinator Scholars' Society, UCSD

SKILLS

Programming

Python, MATLAB, C++, C, JavaScript, Java, Bash shell

Software Tools

OpenCV, PyTorch, TensorFlow, scikit-learn, Jupyter

Unity, OpenGL, GLSL, Oculus VR, VTK Visualization Toolkit

Windows, Linux, macOS

Topics

Computer graphics and visualization, geometric processing, biomedical image processing, animation, computer vision, machine learning, neuroscience, cognitive science, human-computer interaction, animal behavior, vivarium animal handling

Languages

English, native proficiency

Vietnamese, professional working proficiency