

CHIHUA MA

Director, Decision Sciences Visual Analytics @ Epsilon

312-532-2211 • chma87@gmail.com • **WWW:** <https://chihuama.com>

SKILLS

Management Skills: Strategic Planning & Execution, Agile Project Management, Team building, Stakeholder Engagement

Technique Skills: Full-Stack Data Platform Architecture, JavaScript (D3.js), React, Node, SQL, Python, AI/ML

PROFESSIONAL SUMMARY

As the Director of Decision Sciences Visual Analytics at Epsilon, I bring extensive experience in data visualization, machine learning, and leading high-impact, cross-functional projects. I lead a team of PhD-level data scientists dedicated to building innovative visual analytics systems that support effective storytelling and data-driven decision-making for audience insights. With over seven years of experience in the Ad Tech industry, I have consistently delivered solutions that showcase the power of the Epsilon platform within the broader marketing and advertising ecosystem.

My expertise lies in data visualization, visual analytics, human-computer interaction, and AI/ML. I hold a Ph.D. in Computer Science from the University of Illinois at Chicago, where I focused on developing novel visualization tools for complex biological networks. My mission is to harness the power of data and design to bridge the gap between technology and business - enabling smarter decisions, improving user experiences, and driving sustainable business growth.

WORK HISTORY

Apr 2022 - Current

Chicago, IL

Director of Visual Analytics / Epsilon

- Developed a high-performing team by providing mentorship, guidance, and professional growth opportunities, resulting in increased team morale and productivity.
- Improved project efficiency through effective strategic planning, resource allocation, and time management.
- Strengthened team collaboration via regular communication, goal alignment, and performance evaluations.
- Supported senior leadership by translating high-level business objectives into actionable operational plans.
- Facilitated cross-functional collaboration to enhance decision-making and contributed to client-facing conversations focused on revenue growth.

Oct 2020 - Mar 2022
Chicago, IL

Sep 2019 - Oct 2020
Chicago, IL

Feb 2018 - Sep 2019
Chicago, IL

May 2015 - Dec 2017
Chicago, IL

May 2013 - Dec 2013
Chicago, IL

EDUCATION

Expected in 2027
Evanston, IL

Feb 2018
Chicago, IL

Associate Director of Visual Analytics / Epsilon

- Mentored junior staff members by providing guidance on technically challenging projects and supporting their professional development.
- Built strong cross-functional relationships with stakeholders, fostering collaborative opportunities that delivered mutual value.

Senior Data Scientist of Visual Analytics / Epsilon

- Took ownership of multiple projects and led them through effective collaboration with team members.
- Presented complex findings to non-technical stakeholders using clear visualizations and concise reports.

Data Scientist of Visual Analytics / Epsilon

- Utilized advanced querying, visualization, and analytics tools to analyze and process complex datasets.
- Worked on various visual analytics projects to improve internal model exploration and explanation.
- Developed a centralized portal to host multiple projects created by the team.

Research Assistant / University of Illinois, UIC

- Collaborated with domain experts across multiple disciplines to develop interactive visual analytics tools, including Cancer Therapy Analysis, Dynamic Brain Networks, and Ensemble Probability Landscapes of Stochastic Networks.
- Participated actively in regular meetings with fellow researchers to discuss project updates, challenges faced, and lessons learned during ongoing activities.
- Mentored undergraduate students on research projects, providing guidance on both technical and analytical aspects.

Software Engineering Intern / CME Group

- Developed an interactive multi-view visual analytics tool to examine the impact of garbage collection (GC) in the JVM on latency and variability in financial trading systems.
- Published this work at the Information Visualization Theory and Applications (IVAPP) conference.

MBA

Northwestern University
Kellogg School of Management

Ph.D. in Computer Science

University of Illinois At Chicago

- Thesis: Visual Analysis Techniques for Dynamic Biological Networks
- Awarded IS&T 2017 Charles E. Ives Journal Best Paper
- Honoree of IEEE VGTC 2016 Visualization Pioneers Group (VPG) Data Visualization Contest
- IEEE VIS 2016 Doctoral Colloquium Participant Sponsorship Recipient

Jun 2015
Berkeley, CA

Summer School in Neuroscience

University of California, Berkeley
Scholarship Recipient, Summer School on Mining and Modeling of Neuroscience

May 2011
Chicago, IL

Master of Science in Electrical And Computer Engineering

University of Illinois At Chicago

Jun 2009
Tianjin, China

Bachelor of Science in Computer Science

Nankai University

INVITED TALKS

- Visual Analysis Techniques for Dynamic Biological Systems – Brookhaven National Lab, NY (2017)
- Introduction to Data Visualization and Visual Analytics – Nankai University, China (2014)

SELECTED PUBLICATIONS

- PRODIGEN: Visualizing the Probability Landscape of Stochastic Gene Regulatory Networks in State and Time Space (*BMC Bioinformatics*, 2017)
- SwordPlots: Exploring Neuron Behavior within Dynamic Communities of Brain Networks (*Journal of Imaging Science and Technology*, 2016, **Charles E. Ives Journal Award**)
- Visualizing Dynamic Brain Networks Using an Animated Dual-Representation (*EuroVis*, 2015)
- GCLViz: Garbage Collection vs. Latency Visualization (*Information Visualization Theory and Applications*, 2014)