

# 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

**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.

Sep 2019 - Oct 2020  
Chicago, IL

**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.

Feb 2018 - Sep 2019  
Chicago, IL

**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.

May 2015 - Dec 2017  
Chicago, IL

**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.

May 2013 - Dec 2013  
Chicago, IL

**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.

**EDUCATION**

Expected in 2027  
Evanston, IL

**MBA**

Northwestern University  
Kellogg School of Management

Feb 2018  
Chicago, IL

**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)