

ZEHUA ZENG

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*I design and develop visual analytics tools to simplify complex data, enabling more effective data analysis and decision-making.
My contributions have been recognized with awards at premier academic venues.*

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EDUCATION

- 2015–2022 | Ph.D. in Computer Science, **University of Maryland, College Park**, USA
Thesis: A Multi-Faceted Approach for Evaluating Visualization Recommendation Algorithms
- 2011–2015 | B.Eng. in Communication Engineering, **Beijing University of Posts and Telecommunications**, China

SKILLS

Languages JavaScript, HTML, CSS, Python, NodeJS, SQL, TypeScript, Java, C++, Ruby.
Tools/Frameworks ReactJS, D3.js, Chart.js, Plotly, Jupyter, Vega, Tableau, Flask, Django, MongoDB, MATLAB, L^AT_EX.

PROFESSIONAL EXPERIENCE

- JAN 2023 – PRESENT | **Software Research Scientist**, Design and Patterning AI Group, **Intel Inc.**
* * JavaScript, ReactJS, D3.js, DC.js, NodeJS, Python, SQL * *
• Design and develop visualization dashboards for the Design Enablement team, enabling rapid analysis of various layout metrics and facilitating efficient review of layout designs during standard cell deliveries and execution
- JUN 2016 – DEC 2022 | **Graduate Research Assistant**, **University of Maryland, College Park**
* * Python, JavaScript, ReactJS, D3.js, NodeJS, Vega, Jupyter, Tableau, Flask, Ruby, MongoDB * *
• Developed a standardized pipeline for evaluating the performance of visualization recommendation systems
• Developed and maintained websites for the Computer Science Department and the Battle-Data Lab
- JAN 2015 – JUL 2015 | **R&D Engineering Intern**, Natural Language Processing Department, **Baidu Inc.**
* * Python, C++, Hadoop * *
• Assisted word-sense disambiguation using huge-scale Baidu Query Log and Baidu Encyclopedia (millions of entries)

PUBLICATIONS

- J2 **Zeng, Z.** and Battle, L., 2024. A Systematic Review of Visualization Recommendation Systems: Goals, Strategies, Interfaces, and Evaluations. *Foundations and Trends in Databases*, 14(1), pp.1-71.
- C5 **Zeng, Z.**, Yang, J., Moritz, D., Heer, J. and Battle, L., 2023. Too Many Cooks: Exploring How Graphical Perception Studies Influence Visualization Recommendations in Draco. *IEEE Transactions on Visualization and Computer Graphics*, 30(1), pp.1063-1073.
- C4 Yang, J., Gyarmati, P.F., **Zeng, Z.** and Moritz, D., 2023. Draco 2: An Extensible Platform to Model Visualization Design. *IEEE Visualization and Visual Analytics (VIS)*, pp.166-170. (**Best Paper Honorable Mention**)
- J1 **Zeng, Z.** and Battle, L., 2023. Using Graphical Perception in Visualization Recommendation. *Interactions*, 30(3), pp.23-25.
- C3 **Zeng, Z.** and Battle, L., 2023. A Review and Collation of Graphical Perception Knowledge for Visualization Recommendation. In *Proceeding of the ACM CHI Conference on Human Factors in Computing Systems*, pp.1-16.
- C2 **Zeng, Z.**, Moh, P., Du, F., Hoffswell, J., Lee, T.Y., Malik, S., Koh, E. and Battle, L., 2021. An Evaluation-Focused Framework for Visualization Recommendation Algorithms. *IEEE Transactions on Visualization and Computer Graphics*, 28(1), pp.346-356. (**Best Paper Honorable Mention**)
- C1 Badam, S.K., **Zeng, Z.**, Wall, E., Endert, A. and Elmqvist, N., 2017, January. Supporting Team-First Visual Analytics through Group Activity Representations. *Graphics Interface*, pp. 208-213.

AWARDS & RECOGNITION

- 2024 | VGTC Visualization Dissertation Award Honorable Mention
- 2023 | IEEE VIS Best Short Paper Honorable Mention Award (C4)
- 2021 | IEEE VIS Best Paper Honorable Mention Award (C2)
- 2020 | Dean's Fellowship

SERVICE

Reviewer for IEEE VIS (Conference), ACM CHI (Conference), IEEE Transactions on Visualization and Computer Graphics (Journal), Computational Intelligence and Neuroscience (Journal)