Ali Baigelenov

alioktl@gmail.com
http://abaigele.github.io

EDUCATION

Ph.D. in Technology – Purdue University | May 2026
Advisor: Dr. Paul Parsons
Dissertation: "Observing the Muse: Inspiration in Professional Visualization Design Practice"

M. S. in Computer Graphics Technology – Purdue University | December 2017
Advisor: Dr. Paul Parsons
Thesis: "Interactivity Factors in Visualization-Based Exploratory Search"

B. S. in Computer Graphics Technology – Purdue University | December 2015

PROFESSIONAL APPOINTMENTS

Senior Lecturer - SDU University, Kazakhstan | January 2024 - Present
Faculty of Engineering and Natural Sciences
Department of Computer Science

RESEARCH INTERESTS

information visualization; human-computer interaction; human-AI interaction; human-information interaction; design cognition; design theory; applied cognition and perception; human-centered design

PUBLICATIONS

My name appears in bold. All publications listed are peer-reviewed.

Full papers

1. **Baigelenov, A.**, Shukla, P., and Parsons, P. (2025). How Visualization Designers Perceive and Use Inspiration. In *CHI Conference on Human Factors in Computing Systems (CHI '25), April 26-May 1, 2025, Yokohama, Japan.* ACM, New York, NY, USA, 12 pages. https://doi.org/10.1145/3706598.3714191

Short papers and Extended abstracts

1. **Baigelenov, A.**, Shukla, P., Zhang, Z., and Parsons, P. (2025). Are Cognitive Biases as Important as they Seem for Data Visualization?. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25), April 26-May 1, 2025, Yokohama, Japan.* ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3706599.3719926

2. Shukla, P., Bui, P., Levy, S., Kowalski, M., **Baigelenov, A.**, and Parsons, P. (2025). De-skilling, Cognitive Offloading, and Misplaced Responsibilities: Potential Ironies of AI-Assisted Design. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25), April 26-May 1, 2025, Yokohama, Japan.* ACM, New York, NY, USA, 7 pages. https://doi.org/10.1145/3706599.3719931

3. Parsons, P., Gray, C. M., **Baigelenov, A**., & Carr, I. (2020). Design judgment in data visualization practice. In *2020 IEEE Visualization Conference* (VIS) (pp. 176-180). IEEE.

4. Parsons, P., **Baigelenov, A**., Hung, Y. H., & Schrank, C. (2020). What Design Methods do DataVis Practitioners Know and Use?. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 1-8).

5. **Baigelenov, A.**, & Parsons, P. (2018). Interactivity Factors in Visualization-Based Exploratory Search. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI EA '18). ACM, New York, NY, USA, Paper LBW009, 6 pages. DOI: https://doi.org/10.1145/3170427.3188558

Workshop and Symposium papers

1. Parsons, P. C., Shukla, P. C., **Baigelenov, A.**, & Gray, C. M. (2023). Developing Framing Judgment Ability: Student Perceptions from a Graduate UX Design Program. *In Proceedings of the 5th Annual Symposium on HCI Education* (pp. 23-32).

2. Saenz, M., **Baigelenov, A**., Hung, Y. H., & Parsons, P. (2017). Reexamining the cognitive utility of 3D visualizations using augmented reality holograms. In *Workshop on Immersive Analytics: Exploring Future Interaction and Visualization Technologies for Data Analytics* (Immersive 2017), pp. 5.

Poster abstracts

1. Parsons, P., Hung, Y. H., & **Baigelenov, A**. (2018). Toward an Analysis of Practitioner-Oriented Resources for Visualization Design. In *IEEE VIS '18: Proceedings of the 2018 IEEE Conference on Information Visualization*, Poster Abstracts, pp. 2

2. **Baigelenov, A**., Saenz, M., Hung, Y. H., & Parsons, P. (2017). Toward an Understanding of Observational Advantages in Information Visualization. In *IEEE VIS '17: Proceedings of the 2017 IEEE Conference on Information Visualization*, Poster Abstracts, pp. 2.

Full papers - Under review
1. **Baigelenov, A.**, Shukla, P., Bui, P., and Parsons, P. (Under Review, CHI 2026). Talking Inspiration: A Discourse Analysis of Data Visualization Podcasts.

2. Parsons, P., Shukla, P., Bui, P., Agrawal, S., and **Baigelenov, A.** (Under Review, CHI 2026). How Expert Designers Navigate Ambiguity: Orientations, Strategies, and Expertise Markers in Visualization Practice.

3. Parsons, P., Agrawal, S., Bui, P., Shukla, P., and **Baigelenov, A.** (Under Review, DRS 2026). Bias Reconsidered: Ecologically Rational Heuristics in Design Cognition

PROFESSIONAL SERVICE

Organizing Committee
Workshop on Visualization for Communication (VisComm), IEEE VIS - 2025

Reviewer
ACM Conference on Human Factors in Computing Systems (ACM CHI) - 2019, 2021, 2024, 2025
IEEE Visualization Conference (IEEE VIS) - 2023
IEEE Conference on Visual Analytics Science and Technology (IEEE VAST) - 2019
ACM Designing Interactive Systems Conference (ACM DIS) - 2025 (Special Recognition)
ACM Creativity and Cognition Conference (ACM C&C) - 2025 (Highly Useful Review)

Campus/Department
Quality Assurance Committee
SDU University, Kazakhstan

ABET Accreditation Preparation Committee
SDU University, Kazakhstan

Undergraduate Diploma Project Defense Committee
SDU University, Kazakhstan

AWARDS AND GRANTS

National
Kazakhstan's Governmental Scholarship "Bolashak" | January 2010

Institutional
Sriver Award | August 2018
Daniel and Martina Lewis Graduate Award | August 2018

TALKS AND POSTERS

National/International
1. "How Visualization Designers Perceive and Use Inspiration." *CHI Conference on Human Factors in Computing Systems*, Yokohama, Japan, 2025
2. Gateway Usability SGX3 Focus Week. *Science Gateways 2023 Annual Conference.* San Diego Supercomputer Center, San Diego, California, 2023

Campus/Departmental
1. Cognitive Tools: A Data-Driven Perspective. *Future Work and Learning.* Purdue University, Indiana, 2019

TEACHING

Instructor Positions, SDU University, Kazakhstan
- CSS 489: Diploma Preparation (2024, 2025)
- INF 232: Web Programming: Back End (2024, 2025)
- CSS 153: Computer Ethics: Legal, Ethical, and Societal Impacts of Computing (2024)
- CSS 410: Research Tools and Methods (2024)
- INF 228: UX/UI Design (2024)
- CSS 206: Database Management Systems I (2024, 2025)

Teaching Assistant Positions - Purdue University, IN, USA
- CGT 35300: Principles of Interactive and Dynamic Media (2021, 2022)
- CGT 35600: Web Programming, Development, and Data Integration (2021, 2022, 2023)
- CGT 45600: Advanced Web Programming, Development, and Data Integration (2022 , 2023)

Curricular Innovations
- New Courses Developed or Co-Developed
  - CSS 153: Computer Ethics: Legal, Ethical, and Societal Impacts of Computing
  - INF 228: UX/UI Design

Teaching Interests
- human-computer interaction; human-AI interaction; human-centered design; information and data visualization; user experience design; user interface design; ethics in computing; web development front and backend; database management systems

MENTORSHIP AND SUPERVISION

Meiirzhan Uristemov
Teaching Assistant, Master's Student, SDU University | March 2024 - June 2024

Merey Zhursinadilova
Undergraduate Research Assistant, SDU University | August 2025 - Present