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Education

B.A. Media and Communications, Asbury University, May 2010.

Ph.D. Computer Science, University of Kentucky, April 2024.
"Flexible Attenuation Fields: Tomographic Reconstruction From Heterogeneous Datasets," Advisor: W. Brent Seales

Employment

2024–present	Assistant Research Professor, Department of Computer Science, University of Kentucky, Lexington, KY.
2014–2024	Researcher and Project Manager, Department of Computer Science, University of Kentucky, Lexington, KY.
2011–2014	Video Production Coordinator, Center for Visualization and Virtual Environments, University of Kentucky, Lexington, KY.

Publications

Articles

Gokmen, Mahmut S., Caner Ozcan, Moneera N. Haque, Steve W. Leung, **C. Seth Parker**, W. Brent Seales, and Cody Bumgardner. "DINO-LG: A Task-Specific DINO Model for Coronary Calcium Scoring". In: *Pre-print* (2025). DOI: 10.48550/arXiv.2411.07976.

Nicolardi, Federica, Stephen Parsons, Daniel Delattre, Gianluca Del Mastro, Robert L. Fowler, Richard Janko, Tobias Reinhardt, **C. Seth Parker**, Christy Chapman, and W. Brent Seales. "Revealing Text from a Still-rolled Herculaneum Papyrus Scroll (PHerc.Paris. 4)". In: *Zeitschrift für Papyrologie und Epigraphik* 229 (2024), pp. 1–13. DOI: 11588/959427.

Parsons, Stephen, **C. Seth Parker**, Christy Chapman, Mami Hayashida, and W. Brent Seales. "EduceLab-Scrolls: Verifiable Recovery of Text from Herculaneum Papyri using X-ray CT". In: *Pre-print* (2024). DOI: 10.48550/arXiv.2304.02084.

Dilley, Paul C, Christy Chapman, **C Seth Parker**, and W Brent Seales. "The X-Ray Micro-CT of a Full Parchment Codex to Recover Hidden Text: Morgan Library M.910, an Early Coptic Acts of the Apostles Manuscript". In: *Manuscript Studies: A Journal of the Schoenberg Institute for Manuscript Studies* 7.1 (2022), pp. 162–174.

Chapman, Christy Y., **C. Seth Parker**, Ali Bertelsman, Kristina Gessel, Hannah Hatch, Kyra Seevers, James H. Brusuelas, Stephen Parsons, and W. Brent Seales. "The Digital Compilation and Restoration of Herculaneum Fragment P.Herc.118". In: *Manuscript Studies: A Journal of the Schoenberg Institute for Manuscript Studies* 6.1 (2021), pp. 1–32. DOI: 10.1353/mns.2021.0000.

Parker, Clifford Seth, Stephen Parsons, Jack Bandy, Christy Chapman, Frederik Coppens, and William Brent Seales. "From invisibility to readability: Recovering the ink of Herculaneum". In: *PLOS ONE* 14.5 (May 2019), pp. 1–17. DOI: 10.1371/journal.pone.0215775.

Parsons, Stephen, **C. Seth Parker**, and W. Brent Seales. "The St. Chad Gospels: Diachronic Manuscript Registration and Visualization". In: *Manuscript Studies: A Journal of the Schoenberg Institute for Manuscript Studies* 2.2 (2017), pp. 483–498. DOI: 10.1353/mns.2017.0022.

Seales, William Brent, **Clifford Seth Parker**, Michael Segal, Emanuel Tov, Pnina Shor, and Yosef Porath. "From damage to discovery via virtual unwrapping: Reading the scroll from En-Gedi". In: *Science Advances* 2.9 (2016). DOI: 10.1126/sciadv.1601247.

Segal, Michael, Emanuel Tov, William Brent Seales, **Clifford Seth Parker**, Pnina Shor, and Yosef Porath. "An Early Leviticus Scroll from En-Gedi: Preliminary Publication". In: *Textus* 26.1 (2016), pp. 29–58. DOI: 10.1163/2589255X-02601004.

Conference Proceedings

Bhattacharyya, Ankan, **C. Seth Parker**, and W. Brent Seales. "Multispectral Imaging of Damaged Sacramental Journal Pages: A Preliminary Study". In: *Proceedings of 4th International Conference on Frontiers in Computing and Systems*. Ed. by Dipak Kumar Kole, Shubhajit Roy Chowdhury, Subhadip Basu, Dariusz Plewczynski, and Debotosh Bhattacharjee. Singapore: Springer Nature Singapore, 2024, pp. 659–679. ISBN: 978-981-97-2614-1. DOI: 10.1007/978-981-97-2614-1_47.

Chapman, Christy, **Seth Parker**, Stephen Parsons, and W. Brent Seales. "Using METS to Express Digital Provenance for Complex Digital Objects". In: *Metadata and Semantic Research*. Ed. by Emmanouel Garoufallou and María-Antonia Ovalle-Perandones. Cham: Springer International Publishing, Mar. 2021, pp. 143–154. ISBN: 978-3-030-71903-6. DOI: 10.1007/978-3-030-71903-6_15.

Parsons, Stephen, Jacob Chappell, **C. Seth Parker**, and W. Brent Seales. "Machine Learning Infrastructure on the Frontier of Virtual Unwrapping". In: *Proceedings of International Symposium on Grids & Clouds 2021 (ISCG2021)*. Academia Sinica Computing Centre (ASGC), Taipei, Taiwan (Online): Proceedings of Science, Mar. 2021, p. 15. DOI: 10.22323/1.378.0015.

Gessel, Kristina, Stephen Parsons, **Clifford Parker**, and William Seales. "Towards Automating Volumetric Segmentation for Virtual Unwrapping". In: *Proceedings of the 25th International Conference on Cultural Heritage and New Technologies 2020.* Ed. by Wolfgang Börner, Hendrik Rohland, Christina Kral-Börner, and Lina Karner. Nov. 2020.

Parsons, Stephen, Kristina Gessel, **Clifford Parker**, and William Seales. "Deep Learning for More Expressive Virtual Unwrapping". In: *Proceedings of the 25th International Conference on Cultural Heritage and New Technologies 2020.* Ed. by Wolfgang Börner, Hendrik Rohland, Christina Kral-Börner, and Lina Karner. Nov. 2020, pp. 203–207. DOI: 10.11588/propylaeum.1045.c14501.

Ganio, Monica, Stephen Parsons, **Seth Parker**, Marie Svoboda, Brent Seales, and Catherine Schmidt Patterson. "Unbending light: new computational methods for the correction of 3D effects in scanning XRF". In: *Optics for Arts, Architecture, and Archaeology VII*. Conference Proceedings of SPIE Volume 11058. 2019. DOI: 10.1117/12.2525038.

Parsons, Stephen, **C. Seth Parker**, Frederik Coppens, and W. Brent Seales. "Revealing "Invisible" Signals in CT with Machine Learning". In: *Bruker Micro-CT User Meeting*. Abstract Book. Mechelen, Belgium, June 2019, pp. 20–22.

Parker, C. Seth and W. Brent Seales. "Enhanced CT Analysis Using Volume Flattening". In: *Bruker Micro-CT User Meeting*. Abstract Book. Brussels, Belgium, June 2017, pp. 15–16.

Parker, C. Seth, W. Brent Seales, and Gregory Heyworth. "Reading the Invisible Library". In: *Bruker Micro-CT User Meeting*. Abstract Book. Mondorf-les-Bains, Luxembourg, May 2016, pp. 58–59.

Parker, Clifford Seth, William Brent Seales, and Pnina Shor. "Quantitative Distortion Analysis of Flattening Applied to the Scroll from En-Gedi". In: *Art & Archaeology, 2nd International Conference*. 2016.

Books and Anthologies

Seales, W. Brent, **C. Seth Parker**, and Christy Chapman. "4.1.1.7 Virtual Unwrapping: A Computational Approach for Reading Damaged Manuscripts". In: *Textual History of the Bible*. Ed. by Armin Lange. Vol. 4. 2017. Chap. 1.1.7. DOI: 10.1163/2452-4107_thb_COM_225869.

Lectures and Presentations

Parker, C. Seth. "Metadata-enabled computational graphs". Presented at the University of Kentucky Dept. of Computer Science Keeping Current Seminar. Oct. 7, 2020.

Parker, C. Seth. "Reading the Invisible Library: Noninvasive Recovery of Text From Damaged Manuscripts". Presented at R-CHIVE Conference 2017. June 2017.

Projects and Software

Parker, C. Seth. *OpenABF. A single-header C++ library of angle-based flattening algorithms*. Comp. software. Jan. 2021. DOI: 10.5281/zenodo.4483858.

Parker, C. Seth, Kristina Gessel, Stephen Parsons, Jacob Chappell, Bruno Athie Teruel, Nikki Bentley, Ali Bertelsman, John Broadbent, Sydney Chapman, Abigail Coleman, Chao Du, Callie Gardella, Nick Graczyk, Hannah Hatch, Lula Hogg, Sean Karlage, Tam Nguyen, James Pack, David Pennington, Allison Revers, Mike Roup, Michael Royal, Kyra Seevers, Melissa Shankle, Raiffa Syamil, Ryan Taber, and JP Posma. *Volume Cartographer. A cross-platform C++ library and toolkit for the recovery and restoration of damaged cultural artifacts*. Comp. software. Mar. 2021. DOI: 10.5281/zenodo.4604881.

Parker, C. Seth. *Structured Metadata Engine and Graph Objects Library*. Comp. software. Oct. 2020. DOI: 10.5281/zenodo.4134987.

Honors and Awards

Outstanding Student Paper Award, "From invisibility to readability: Recovering the ink of Herculaneum", University of Kentucky, Department of Computer Science, April 2021