

Lakin Wecker

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Current position

PhD Candidate, University of Calgary
Owner / Director / Software Developer, [Structured Abstraction](#)

Areas of specialization

Digital Earth, Numerical Optimization, Geometric Modelling, Computer Graphics,
Software Construction, Software Construction Education, Capacity Building

Industry

2000-2002	Lead Programmer, RSI, Washington DC
2004	Lead Programmer, iStockPhoto, Calgary, AB
2004-2006	Lead Database Programmer, Taxback, Calgary, AB
2006-2007	Senior Software Developer, Evolvs Media Inc, Calgary, AB
2007-2008	Senior Software Developer, Etsy Inc, Brooklyn, NY
2008-Present	Owner, Director and Software Developer, Structured Abstraction, Calgary AB

Volunteerism

2021-Present Treasurer, <https://lichess.org>

Education

DEGREES

2004	B.Sc in Computer Science, University of Calgary
2007	M.Sc in Computer Science, University of Calgary
2020	PH.D CANDIDATE in Computer Science, University of Calgary

TEACHING

- 2020 TEACHING ASSISTANT for “Introduction to Computer Graphics” (CPSC 453), University of Calgary

Grants, honors & awards

- 2007 Twice recipient of a Departmental Research Award
2017 Queen Elizabeth Scholarship
2018 NSERC Scholarship

Publications, talks & research

RESEARCH

- 2018-2020 Research Assistant supervised by Dr. Samavati

THESIS

- 2007 “Synthesizing Techniques based on Multiresolution” Wecker L. *M.Sc Thesis*, University of Calgary

JOURNAL ARTICLES

- 2007 “Contextual Void Patching for Digital Elevation Models” Wecker L., Samavati F. and Gavrilova M. *The Visual Computer*, Springer-Verlag (2007) [\[DOI\]](#)
- 2010 “A Multiresolution Approach to Iris Synthesis” Wecker L., Samavati F. and Gavrilova M. *Computers & Graphics*, Elsevier Ltd. (2010) [\[DOI\]](#)
- 2020 “Disdyakis Triacontahedron DGGS” Hall J., Wecker L., Ulmer B. and Samavati F. *ISPRS Int. J. Geo-Inf.* MDPI (2020) [\[DOI\]](#)
- 2022 “Perspective Charts in a Multi-Foci Globe-Based Visualization of COVID-19 Data.” MacTavish, M., Wecker L., and Samavati F. *ISPRS International Journal of Geo-Information* MDPI (2022) [\[DOI\]](#)
- “Efficient Calculation of Distance Transform on Discrete Global Grid Systems” Kazemi, M., Wecker L., Samavati F. *ISPRS International Journal of Geo-Information* MDPI (2022) [\[DOI\]](#)

CONFERENCES

- 2005 “Iris Synthesis: A Reverse Subdivision Application” Lakin Wecker, Samavati F. and Gavrilova M. (2005) *International Conference on Computer Graphics and Interactive Techniques in Australasia and South East Asia (GRAPHITE)* in association

2021

with ACM SIGGRAPH, Short Paper [\[DOI\]](#)

“Toward 4D automated change detection in cryospheric systems: A multi-resolution approach to point cloud registration without control points” Bash, E.A., Wecker, L., Rahaman, M.M., Dow, C., McDermid, G., Moorman, B., Whitehead, K. *AGU Fall Meeting*, Poster [\[HREF\]](#)