

ALECK C. JOHNSEN

Northwestern University ▪ Computer Science ▪ 2233 Tech Drive ▪ Evanston, Illinois 60208
www.eecs.northwestern.edu/~acj861/ ▪ aleckjohnsen@u.northwestern.edu ▪ +1 (847) 421-3057

RESEARCH INTERESTS

Economics. Mechanism design, auction theory, econometric inference in auctions, game theory, information design, persuasion.

Computer Science. Robust mechanism design, algorithmic game theory, online algorithms, adversary algorithms, data science theory.

EDUCATION

Northwestern University

Degree: (forthcoming) Ph.D. Computer Science (scheduled June 2020)

Thesis: *Information Design Bounds and Inference in Auctions*

Advisor: Professor Jason D. Hartline

University of Illinois, Urbana-Champaign

Degrees: BS Mathematics (2003); BS Civil Engineering- Transportation (2003)

TEACHING

Lecturer. EECS 214 Data Structures & Data Management (Fall '14)

TA. EECS 214 Data Structures & Data Management (Spring '14)
EECS 336 Design & Analysis of Algorithms (Spring '17, Winter '13, Winter '12)

WORKING PAPERS

Algorithm Lower Bounds from Information Design. (from 2015)
with Jason Hartline

Benchmark Design and Prior Independent Optimization. (from 2019)
with Jason Hartline and Yingkai Li

Bias-Variance Games. (from 2018)
with Yiding Feng, Ronen Gradwohl, Jason Hartline, and Denis Nekipelov

Learning Foundations for Mechanism Design. (from 2018)
with Modibo Camara and Jason Hartline

JOURNAL PAPER

A Manually Checkable Proof for the NP-Hardness of 11-Color Pattern Self-Assembly Tile Set Synthesis.

with Ming-Yang Kao and Shinnosuke Seki
(JOCO) *Journal of Combinatorial Optimization*, 2017

REFEREED CONFERENCE PAPERS

Inference from Auction Prices.

with Jason Hartline, Denis Nekipelov, and Zihe Wang
(SODA) *Symposium on Discrete Algorithms*, 2020

Dashboard Mechanisms for Online Marketplaces.

with Jason Hartline, Denis Nekipelov, and Onno Zoeter
(EC) *Conference on Economics and Computation*, 2019

Computing Minimum Tile Sets to Self-Assemble Color Patterns.

with Ming-Yang Kao and Shinnosuke Seki
(ISAAC) *International Symposium on Algorithms and Computation*, 2013

INDUSTRY

CFA Charterholder. *Professional Designation* (2009 - current)

GreenGage Capital, LLC. *Venture Analyst* (May 14 - Oct 19)
Occasional joint engineering-and-finance review of startups.

Booking.com. *Auction Design and Data Consultant; Researcher [Summer+]* (Jun 16 - June 19)
Worked with the site's Ranking Team on implementation of non-truthful auction design.

Global Tax Solutions, LLC. *Software Developer [Summer+]* (Jun 14 - Nov 18)
Wrote a C# module to match IRS-provided XSD to database values and generate electronically file-able corporate tax returns in XML.

303 Capital, LLC. *Software Developer and Strategy Analyst [Summer+]* (Jul 13 - Oct 13)
Wrote trading logic and supporting libraries using a third party language (RTS Tango).

Bluefin Trading, LLC. *Equities / Bonds Screen Trader and Strategy Analyst* (Mar 08 - Mar 10)

Allston Trading, LLC. *Equities Screen Trader and Strategy Analyst* (Nov 05 - Nov 07)

ROQ Capital, LLC & WH Trading, LLC. *Clerk; Options Floor Trader* (Feb 04 - Nov 05)

Canadian National Railroad. *Civil Engineering Intern [Summer]* (May 03 - Aug 03)

Univ. of Illinois (UC), Dept. of Mathematics. *REU in Number Theory* (Jun 02 - Aug 02)
Project: *An Elementary Description of Rarified Sums of the Thue-Morse Sequence*
Advisor: Professor A. J. Hildebrand

Chicago Equity Partners, LLC. *Finance Intern [Summer]* (May 00 - Aug 00)