

# Jake Koenig



ja3k.com/cv

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## EDUCATION

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- 2017-2021    Math PhD program at the Ohio State University (left with masters)  
Specialization: Random Matrix Theory
- 2012-2015    B.S. at the University of Chicago  
Major: Math  
GPA: 3.72

## PUBLICATIONS

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J. Koenig and H. Nguyen (2022). *Rank of Near Uniform Matrices*. Journal of Combinatorics, 13(3) 397 – 436.

Bhargava, A., DePascale, J. & Koenig, J. The Rank of the Sandpile Group of Random Directed Bipartite Graphs. Ann. Comb. (2023). <https://doi.org/10.1007/s00026-023-00637-3>

Jake Koenig. *Exponential Growth for Babies*. Self published children's book. <https://www.amazon.com/Exponential-Growth-Babies-Jake-Koenig/dp/BOBMJQ8X5L>

## WORK

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OCTOBER 2021 TO PRESENT    |    Software Engineer at The Arena Group  
Worked on their commenting system and backend. Q1 2023 launched [rojo](#) a community site for commenting on sites owned and operated by the Arena Group.

WINTER 2016 TO SPRING 2017    |    Software Engineer at Google  
Worked on Dynamic Links and other Firebase Products.

SUMMER 2015    |    Software Engineering Intern at Palantir Technologies

SUMMER 2014    |    Software Engineering Intern at IMC Financial Markets

## SKILLS AND TECHNOLOGIES

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**Languages:** Python, Typescript, Clojure, Vimscript

**Developer Tools:** chatGPT, copilot, git, vim, tmux, sql, aws, gcloud

**Libraries:** Flask, Numpy, Express

**Project management:** Agile, Jira

## ASSORTED SIDE PROJECTS

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KALSHI MARKET MAKER    |    Code not available, written in clojure. An ongoing project to trade at a high frequency on the prediction market exchange Kalshi. I did \$500k of volume in May 2023.

PREDICTION ALERTS    |    Hosted [here](#), code [here](#). A price alert service for the trading platforms Kalshi, Predictit and Polymarket.

CHATVIM    |    Code [here](#). A plugin for talking with Chat GPT in vim.

TMUX POM    |    Code [here](#). A tmux pomodoro plugin.

AUTOGIT.VIM    |    Code [here](#). A vim plugin for automatically keeping repos in sync. Intended for use with personal notes and dotfiles.

JA3K.COM    |    A personal site for which I made my own static site generator. SSG code [here](#), site code [here](#).