

Daniel Mikhail

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mikhaidn.github.io/Plokmin

Education

2020 - 2024 **Masters of Computer Science**; University of Illinois at Urbana-Champaign

2014 - 2018 **BSc, Computer Science**; Rose-Hulman Institute of Technology (*Terre Haute, IN*)

Experience

2018 - 2021 **Software Production/Development Engineer** at Yahoo! (*Champaign, IL*)

Served as the production point of contact for components of Yahoo!'s DSP advertisement pipeline and develop tools built primarily on the Hadoop Ecosystem (Oozie, HBase, Pig, Spark, etc.) or Amazon Web Service (EC2, S3, Redshift, KMS, etc.)

- Communicate blockers in-between developer teams and apply software or operation solutions as they arise (e.g. update 100's of Linux boxes to remove Spectre and Meltdown vulnerabilities, hot-swap production code to mitigate errors caused by unreported schema changes upstream, etc.)
- Formed a high level intuition of our Hadoop Ecosystem and efficiently passed on tribal knowledge to newer Production Engineers, speeding up the time needed to be "on-call" ready by about a month
- Decreased the time to triage errors by 10x on a new set of lambda-architecture pipelines through a Django web-app that presents an aggregation of status checks that were routinely updated via Celery scheduling and Kafka messaging

2016 - 2018 **Resident Assistant** at Rose-Hulman Institute of Technology (*Terre Haute, IN*)

- Resident Assistant of the Year (2016-17)

Side Projects

Details of everything listed below can be found at mikhaidn.github.io/Plokmin

Open Source Research Increased the documented search space of two integer sequences (A100570 and A241922) on the OEIS by 6 orders of magnitude by taking advantage of bitmapping, multithreading, and other computational tactics

Knowledge Dumps Beginner-friendly guides I've made over the past year, inspired by the FAQs I get

- **Macarons** - A high level guide to making French Macarons
- **The Unix Shell** - A simplified list of goals for learning the Unix Shell
- **STEM College Prep** - A collection of my favorite pre-college STEM resources

Skills

- **Web Development:** Django(Python), MySQL, JavaScript
- **Unix Admin:** Networking, Bash Scripting, Data Management
- **DevOps:** Containers (Docker), CI/CD (Jenkins)
- **Scientific Computing:** MATLAB, R, SciPy (Python)
- **Hobbies:** Boulderling, Competitive Smash Bros., Violin, Bar Trivia