

Arthur Borem

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EDUCATION

The University of Chicago

Chicago, IL
Doctor of Philosophy (Ph.D.) in Computer Science, 3.9 GPA Sept 2021 – May 2026 (expected)
Master of Science (M.S.) in Computer Science, 3.9 GPA Sept 2021 – June 2024
Dissertation: Developing online transparency tools for making the data subject right of access useful and usable.

Brown University

Providence, RI
Bachelor of Science (B.S.) in Computer Science, 3.7 GPA Aug 2016 – May 2020
Activities: head teaching assistant (TA), undergrad TA orientation leader, student diversity advocate.

PROFESSIONAL EXPERIENCE

Asana

Chicago, IL
Software Engineer, L4 | Full Stack | Notifications, Messaging, and Communication Team June 2020 – Sep 2021

- Built and maintained a video transcript generation service with searchability by storing transcripts in Elasticsearch.
- Maintained Asana's entire email ecosystem in Javascript and Scala by solving bugs and responding to incidents.
- Developed front-end for 3 versions of Do Not Disturb feature and ran an A/B/C test to identify best performer.
- Technical lead (team of 3) of Do Not Disturb redesign: apprentice (received full-time offer) and desktop engineer.
- Engineer in 3 top-tier launches: async video messages (with Vimeo), Messaging, and Notifications dashboard.

Lyft

San Francisco, CA
Software Engineer, Intern | Backend | Enterprise Team June 2019 – Aug 2019

- Developed Python health status API that leveraged dozens of logging and reporting systems for enterprise products.
- Represented the engineering team in discussions and negotiations with Lyft Business customers for API endpoints.
- Rewrote team's documentation and implemented new docs organization strategy for other teams to use our platform.

Bank of American Merrill Lynch

New York City, NY
Software Engineer, Intern | Full Stack | Wealth Management Organization June 2018 – Aug 2018

- Prototyped chatbot (precursor to current bot, Erica) on iOS in Merrill Lynch mobile app with stock market integration.
- Presented the feature to executives of the Wealth Management organization and received a return offer.

RESEARCH EXPERIENCE

Data Subject Access Visualization Tool, The University of Chicago SUPERgroup

Chicago, IL
Lead Software Developer, Project Manager, and Researcher Sep 2021 – Present

- Designed and implemented React interface for viewing and annotating large (2GB+) JSON/CSV files in the browser.
- Architected data pipeline for parsing large, structured text files completely on the client side to preserve privacy.
- Developed redaction and pseudonymization technique for large, structured text files that preserves variable names.
- Led 1 PhD student and 6 undergrads in development of the same data annotation tool.
- Speaker at privacy engineering conference (PEPR 2024) and first-author of paper in top privacy and security conference (USENIX Security 2024).

Jupyter Lab Bias Detection Extension, The University of Chicago SUPERgroup

Chicago, IL
Researcher, Developer, and Author Sep 2023 – Present

- Developed PHP UI for JupyterLab extension that analyzes Python data frames and identifies bias in specific columns.
- Best paper award for co-authored paper published at CHI 2024 (acceptance rate < 30%).

Anti-tracking and Ad-blocking Measurement Study, The University of Chicago SUPERgroup

Chicago, IL
Researcher and Author Oct 2021 – Aug 2023

- Co-designed and ran a study to identify most common forms of website malfunction due to anti-tracking browser extensions by investigating over 10,000 user reviews for 10 extensions across 3 browsers.
- Co-designed and ran a user study (n=100) to identify most common forms of mitigation tactics against malfunction.
- Second author on paper published at USENIX Security Symposium 2023 (acceptance rate < 30%).

SKILLS

- **Languages:** Javascript, Typescript, Python, Java, Scala, HTML, CSS, SQL, Bash
- **Tools:** AWS, DynamoDB, Redis, Git, Bazel, React.js, Node.js, SVN, GraphQL, Datadog, Elasticsearch
- **Expertise:** GDPR/data privacy compliance, usable privacy, data governance, academic writing, peer review