

Arthur Borem

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EXPERIENCE

- Security, Usability, and Privacy Research Group**, University of Chicago **Sep 2021 – Present**
Personal Data Annotation and Visualization Tool | *Lead Developer, Author, and Project Manager* **Sep 2021 – Present**
- Designed and implemented web app for users to upload, visualize, and annotate their personal data from companies.
 - Preserved user privacy by parsing and rendering Data Subject Access Request files (8GB+) entirely on the client.
 - Developed redaction and pseudonymization technique for large, structured text files that preserves variable names.
 - Created recommendations to improve DSARs for leaders in policy and industry by running international user study.
 - Led one PhD student and 6 undergrads and collaborated with professors from 2 institutions in development of web app.
 - Presented a talk at Privacy Engineering Practice and Respect (PEPR 2024) conference and was first-author on paper published at USENIX Security Symposium 2024 (acceptance rate < 20%).
- Advertising Transparency Systems Taxonomy and Evaluation* | *Researcher and Author* **Sep 2023 – Present**
- Co-designed measurement and evaluation study of dozens of ad transparency systems (e.g., Google Ads Library).
 - Developed taxonomy of features present in the systems by developing codebook and qualitatively coding each system.
- Jupyter Lab Bias Detection Extension* | *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* | *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%).
- Asana** **June 2020 – Sep 2021**
Software Engineer, L4, Full Stack | *Notifications, Messaging, and Communication Team*
- 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 three versions of Do Not Disturb feature and ran A/B/C test to identify highest performer.
 - Led engineer apprentice (received full-time offer) and desktop engineer in redesign of Do Not Disturb feature.
 - Developer in 3 top-tier launches: async video messages (with Vimeo), messaging, and notifications dashboard.
- Lyft** **June 2019 – Aug 2019**
Software Engineer, Intern, Backend | *Enterprise Team*
- 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.
 - Received full time return offer after presenting project to manager and engineering leads.

EDUCATION

- University of Chicago**
- Doctor of Philosophy (Ph.D.) in Computer Science, 3.9 GPA **Sept 2021 – May 2028 (expected)**
Master of Science (M.S.) in Computer Science, 3.9 GPA **Sept 2021 – June 2024**
- Brown University**, Bachelor of Science (B.S.) in Computer Science, 3.7 GPA **Aug 2016 – May 2020**

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