Arthur Borem

arthurborem@gmail.com | 832-560-9681 | linkedin.com/in/arthurborem | Chicago, IL

SKILLS

Tech: Typescript, Python, React, Node.js, Django, GraphQL, PostgreSQL, DynamoDB, HTML, CSS/Sass.

Other: privacy engineering, OAuth, data subject privacy rights, privacy and security, CI/CD, system design, human-computer interaction, large-scale user studies, A/B testing, privacy tool design, Figma.

EDUCATION

PhD in Computer Science (in progress). University of Chicago. *Chicago, IL.*   **Sep 2021 – Jun 2026 (exp)**
Tooling + standards for GDPR/CCPA data subject rights (access, portability), privacy-preserving data handling.

MS in Computer Science. University of Chicago. *Chicago, IL.*   **Sep 2021 – Jun 2024**

BS in Computer Science. Brown University. *Providence, RI.*   **Aug 2016 – May 2020**

EXPERIENCE (INDUSTRY)

Data Transfer Initiative. Software Engineer Intern. *Remote.*   **Jul 2025 – Sep 2025**
- Led development of and launched Pardner (github.com/dtinit/pardner), Python package, enabling user-authorized (OAuth 2.0) corss-platform data portability.
- Built automated standardization and validation of personal data category formats from different services, eliminating manual field-mapping for data scientists and engineers working on portability.
- Deployed Django-based data donation web-app, reducing participant donation time from multi-day communications with researchers to automated data transfers that last milliseconds.

Asana. Software Engineer. *San Francisco, CA.*   **Jun 2020 – Sep 2021**
- Launched in-product video recording feature (React, GraphQL, AWS) to millions of users in collaboration with Vimeo engineers; 80%+ enterprise adoption and earned Fast Company joint-venture award.
- Launched video text-search by indexing transcripts in Elasticsearch, increasing discoverability and adoption.
- Built backend (Typescript, Scala) for first AI-powered recommendation system for messages, delivering context-aware suggestions for collaborators, projects, and tasks directly in the text composer UI.
- Created roadmap and assigned tasks to three engineers for the implementation of "Do not Disturb" notifications; partnered with product, finance, and design to run experiments to minimize churn risk.
- Maintained and optimized email infrastructure, delivering and ingesting 5k+/day emails with no incidents.

Lyft. Software Engineer Intern. *San Francisco, CA.*   **Jun 2019 – Aug 2019**
- Reduced enterprise support tickets by deploying a Lyft Business system health REST API (Python, Redis, DynamoDB) by monitoring and aggregating response time latency percentiles and endpoint error rates.
- Iteratively designed API schema via direct collaboration with client support engineers and customers.

Bank of America. Software Engineer Intern. *New York, NY.*   **Jun 2018 – Aug 2018**
- Piloted in-app iOS chatbot (pre-Erica) and created an implementation plan for chatbot banking.

RESEARCH (SELECTED)

Data Subject Rights Exploration Platform. University of Chicago.   **2025**
- Catalogued DSAR responses from 200+ companies, with response latency and data category coverage.
- Designed and prototyped AI Agent to fetch and synthesize personal DSAR user data based on prompts.

Ad-Blocker Browser Breakage Detection. University of Chicago.   **2024**
- Published taxonomy of ad-blocker-induced website breakage (e.g., broken login) by scraping and analyzing thousands of user complaints/reviews; as recognized by Brave Browser and uBlockOrigin.

Personal Data Annotation Tool. University of Chicago.   **2023 – 2024**
- Led team of 4 to build privacy-preserving React-based web-app for users to interact with, visualize, and annotate their personal data obtained from making data subject access requests (DSARs).
- Deployed privacy-preserving data processing pipeline entirely in a user's browser without increasing latency by parallelizing (via web workers) parsing and redaction tasks and using IndexedDB (NoSQL database).
- Eliminated multi-second freezes by paginating large JSON files with thousands of complex nested objects.
- Developed award-winning policy recommendations by analyzing 500+ annotations and DSAR files.

TALKS

Enabling Data Portability in a Research Setting   **2025**
DjangoCon US 2025.

Data Subjects' Reactions to Exercising Their Right of Access   **2024**
USENIX Security 2024.

Designing a Data Subject Access Rights Tool   **2024**
*USENIX Privacy Engineering Practice and Respect (**PEPR 2024**)*.

HONORS & AWARDS

Privacy Papers for Policy Makers Student Award. Future of Privacy Forum.   **2025**

John Crerar Fellowship. University of Chicago.   **2021**

NSF Graduate Research Fellowship Program, Honorable Mention.   **2021**

SELETEC PUBLICATIONS

Kevin Bryson, **Arthur Borem**, Phoebe Moh, Omer Akgul, Michelle L. Mazurek, Blase Ur. "Evaluating and Taxonomizing Ad Transparency Systems." *IEEE Symposium on Security and Privacy (**S&P 2025**)*.

Arthur Borem, Elleen Pan, Olufunmilola Obielodan, Aurelie Roubinowitz, Luca Dovichi, Michelle L. Mazurek, Blase Ur. "Data Subjects' Reactions to Exercising Their Right of Access." *USENIX Security Symposium (**USENIX Security 2024**)*.

Galen Harrison, Kevin Bryson, Ahmed E. B. Bamba, Luca Dovichi, Aleksander H. Binion, **Arthur Borem**, Blase Ur. "JupyterLab in Retrograde: Contextual Notifications That Highlight Fairness and Bias Issues for Data Scientists." *ACM Conference on Human Factors in Computing Systems (**CHI 2024**)*. **Best Paper Award.**

Alexandra Nisenoff, **Arthur Borem**, Madison Pickering, Grant Nakanishi, Maya Thumpasery, Blase Ur. "Defining Broken: UX and Remediation Tactics When Ad-Blocking or Tracking-Protection Tools Break a Website's User Experience." *USENIX Security Symposium (**USENIX Security 2023**)*.

Arthur Borem, Elleen Pan. "Privacy & Contextual Integrity in a Crowdsourced Gig Work Knowledge Sharing Platform." *Symposium on Applications of Contextual Integrity (**PrivaCI 2023**)*.