DONATO E. BORRELLO

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EDUCATION

Bachelor of Science, Computer Science University of Rochester May 2012 Rochester, NY

PUBLICATIONS

Promoted Content Selection and Delivery in a Television Platform

Utility patent (US20240314381), solving for secure user-addressability on TV platforms.

Online Sequence Alignment for Real-Time Audio Transcription by Non-Experts

White-paper on aligning tokenized input for optimal sequencing, published at AAAI 2012.

Real time Captioning by Non-Experts

White-paper on crowd-sourcing audio transcription, nominated for best paper at UIST.

OTHER CONTRIBUTIONS

Election Reform New York

February 2017 - 2020

Founder of a non-profit group that got Ranked Choice Voting passed for primaries in NYC in June 2019.

The Nitty Gritty of Adaptive Video Transmuxing

May 2016

Presented to EmpireJS on efficient video transmuxing to improve time to first frame (400+ attendees).

EXPERIENCE

STAFF ENGINEER GOOGLE Feb 2024 - Present Remote, NJ

- Led the Google Ad Manager response to Privacy Sandbox for video, publishing Protected Audience API for Video. Impact of revenue loss mitigation estimated to be 9 figures.
- Created a 'Zero-Latency' roadmap for video advertising through full-stack technical design and implementation. Initial results have a realized impact of 70% on key Connected-TV segments.
- Created and led a task force to improve fraud detection on CTV while improving inventory access, across 4 product areas.

SCIFI ENTHUSIAST PUBLIC LIBRARIES FORMATIVE YEARS - PRESENT NEW YORK, NY

- I fell in love with Isaac Asimov and Arthur C Clarke early, fueling a passion for sci-fi and coding.
- Throughout high school I worked on bots to automate mmorpg games. To evade bot-hunters I downloaded and annotated captchas to train a home-brew python OCR.
- My current project is a language learning app, which simulates being part of a study group using multiple agents with independent traits and daily "experiences".

TECH LEAD/MANAGER GOOGLE

- Drove development of 16 binaries, responsible for xx trillion ad requests/year and 3x growth in impressions in my tenure.
- \bullet Emphasized developer scalability and investments in tooling + productivity, to mitigate toil from platform-based fragmentation.
- Developed the next generation of leads, including 4 promotions, while growing the team from 4 to 9 members.

- Designed and implemented a solution (Trustless GAIA) to bring Google-signed-in personalization to video advertising on Android.
- Due to good performance and handling of user-privacy it has been generalized and expanded to solve for gBid (2023), AdMob (2023), GoogleTV (2024) and Waze (2025).
- Lead for client implementations of GDPR, CCPA and COPPA compliance for digital video advertising, impacting 2B+ impressions/day.

Engineering Manager JW Player

APR 2016 - JAN 2018 NEW YORK, NY

- Interviewed, hired and built out the Data organization from 8 members to 30, as part of four independent teams.
- Drove data architecture decisions when scaling data systems, from 15k req/sec to 60k req/sec.
- Perform technical comparisons and break-even analysis of technology stacks, then negotiated package pricing with cloud providers including AWS, Snowflake and ModeAnalytics.

SENIOR SOFTWARE ENGINEER JW PLAYER

MAY 2014 - APR 2016 NEW YORK, NY

- Redesigned the Javascript message bus for higher performance, shaving 20% off startup time, across 1 billion plays per month.
- Lead Engineer on implementing VPAID2 specification from the IAB, HLS standard from Apple, and Chromecast from Google.
- Prototyped and built a full-stack testing framework combining automated and manual tests. Regression testing decreased from 4 weeks to 1.5 weeks.

SOFTWARE ENGINEER FACTSET RESEARCH SYSTEMS

Jun 2012 - Apr 2014 New York, NY

- Technical Lead on several web applications, setting the record for fastest rendering time among hundreds.
- Created a tool *p4-compare*, which let developers compare the cyclomatic complexity of their code changes against the baseline before committing it.
- Learned to maintain, extend, and love legacy codebases. Or at least love refactoring them.

RESEARCH FELLOWSHIP WITH XEROX UNIVERSITY OF ROCHESTER HCI LAB

Jun 2011 - May 2012 Rochester, NY

- Researched crowd-sourced real-time audio transcription for hearing-impaired internet users.
- Developed a management application for Amazon Mechanical Turk which allowed faster iteration on experiments.
- Awarded Xerox Fellowship for contributions to real-time processing of crowd inputs.

SKILLS

- Leadership: Management, Mentoring, Hiring, Performance Reviews, and Career Development
- Programming Languages: Java/Kotlin, JS/TS, C++, Python, and SQL
- Data Experience: Modeling, Logging Pipelines, Analytics, and Reporting
- Interests: Music, Civics, Gardening, and Chat Bots, Data Visualization
- Favorite Places: New York, Roma, Nanjing, Turks'n Caicos, and Tamarindo