Donato E. Borrello

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EXPERIENCE

SENIOR SOFTWARE ENGINEER   NOVEMBER 2019 - PRESENT
GOOGLE   NEW YORK, NY

- Designed a low-latency system for cross-screen ad serving on server-to-server ad requests. The system was fundamental to closing a deal which swung Disney from FreeWheel to Google Ad Manager.
- Tech Lead for Video Advertising on Android - handling 400m+ impressions daily. Decreased error rates by 30%+ through code-quality and simplification.
- Championed and implemented a solution for bringing Google-signed-in personalization to Android for the first time using Google Play Services. The new module is running on 1B+ Android devices.
- Designed and productionized a smart preloading feature which showed a 48% improvement in time to first-frame for video playback.
- Built symbiotic relationships with diverse stakeholders like Android OS, ExoPlayer, AdMob, Ad Spam and Play Store. Leads to better code-reuse and cross-product test strategies.
- Often performing design reviews, code reviews of Java/JS/Python, business modeling, work estimation and road mapping.

SOFTWARE ENGINEER   FEBRUARY 2018 - OCTOBER 2019
GOOGLE   NEW YORK, NY

- Design and lead global strategy for Ads Transparency for Connected TV devices including Android TV, Apple TV, Roku, FireTV and Chromecast.
- Oversaw implementation of GDPR, CCPA and COPPA compliance for digital Video Advertising, responsible for over 1.7B ad impressions per day.
- Led cross-vertical initiative with Chromium team to launch Stale-While-Revalidate header caching which improved global median page load time by 2.5%.
- Recruited, hired and coached new hires, while performing hundreds of interviews and phone-screens.

ENGINEERING MANAGER   APRIL 2016 - JAN 2018
JW PLAYER   NEW YORK, NY

- Interviewed, hired and built out the Data organization from 8 members to 30, as part of four independent teams.
- Successfully helped principal and senior engineers with career planning and coaching, through humility and asking questions.
- Worked closely with Product Management to plan quarterly and annual roadmaps for each team.
- 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.
- Revamped processes for Database Changes and Incident Response to 70 engineers across 8 teams; decreasing service outages from 0.15% to 0.01% weekly.

SENIOR SOFTWARE ENGINEER   MAY 2014 - APRIL 2016
JW PLAYER   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   JUNE 2012 - APRIL 2014
FACTSET RESEARCH SYSTEMS   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.
- Built out a toolkit for rapidly prototyping new reports, allowing teams in New York, Norwalk and London to search and share code as reusable modules.
- Learned to maintain, extend, and love legacy codebases. Or at least love refactoring them.

RESEARCH FELLOWSHIP WITH XEROX   ROCHESTER, NY
UNIVERSITY OF ROCHESTER HCI LAB   JUNE 2011 - MAY 2012

- 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.

FULL STACK GAME DEVELOPER   JUNE 2008 - APRIL 2012
FREELANCE   NEW YORK, NY

- Created a new interface to a text-based MMORPG, to enhance and improve fundamental gameplay.
- Provided real-time analytics comparing 800+ registered users - at peak popularity 50k writes per day.
- Wrote bots to simulate human interaction, automating every aspect of gameplay. Required header-spoofing, captcha cracking, and basic NLP. (Dont tell the admins!)

EDUCATION

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

PUBLICATIONS

Real time Captioning by Non-Experts   October 2012
A white-paper on crowd-sourcing as an alternative to professional services for economically viable audio transcription. Nominated for best paper in the the 25th Annual UIST Conference.

Online Sequence Alignment for Real-Time Audio Transcription by Non-Experts   November 2012
Research into aligning tokenized input from by multiple different users to determine the most likely correct sequencing. Published by the 26th Annual AAAI Conference 2012.

OTHER CONTRIBUTIONS

Election Reform New York   February 2017 - Present
Founder of a non-profit group, partnered with FairVote, to bring Ranked Choice Voting to New York. On June 2019, it was passed in NYC for all municipal primaries and special elections!

The Nitty Gritty of Adaptive Video Transmuxing   May 2016
A technical talk at the EmpireJS Conference on efficiently transmuxing video in javascript for improving time to first frame, with over 400 attendees.

SKILLS

- **Programming Languages:** `C++`, `Javascript`, `Python`, `Java`, `Node`, and `SQL`
- **Data Experience:** `Spark`, `Storm`, `Kafka`, `Hadoop/MR`, `Hive`, and `GraphX`
- **Interests:** `Music`, `Election Reform`, `Gardening`, and `Data Visualization`
- **Favorite Places:** `New York`, `Puglia`, `Turks'n Caicos`, `Tamarindo`, and `Buenos Aires`