

DONATO E. BORRELLLO  
4 Park Avenue #9B, New York, NY 10016  
✉ venar303@gmail.com ☎ (917) 280-0069

## EDUCATION

---

Bachelor of Science, Computer Science  
University of Rochester

May 2012  
Rochester, NY

## EXPERIENCE

---

JW PLAYER

NEW YORK, NY

LEAD ENGINEER

APRIL 2016 - PRESENT

- Hire and lead a team of 8 to be self-sufficient, guiding them to timely completion of projects.
- Drive data architecture decisions when scaling systems, such as Storm from 25k req/sec to 50k req/sec.
- Perform technical comparisons and break-even analysis of technology stacks, then negotiated package pricing with cloud providers including AWS.
- Revamped processes for Database Changes and Incident Response to 50 engineers across 6 teams; decreasing service outages from 0.15% to 0.01% weekly.

JW PLAYER

NEW YORK, NY

SENIOR SOFTWARE ENGINEER

MAY 2014 - APRIL 2016

- Redesigned the javascript message bus for higher performance, shaving 20% off startup time.
- 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.

FACTSET RESEARCH SYSTEMS

JUNE 2012 - APRIL 2014

SOFTWARE ENGINEER

NEW YORK, NY

- Full stack development, at individual report level and at infrastructure level.
- Performed as Technical Lead on the production of Portfolio Manager Snapshot. This analytics report had the fastest rendering time among the hundreds in the CoMA division of FactSet.
- Created a tool *p4-compare*, which let developers compare the cyclomatic complexity of their change against what is in master.
- Worked across departments creating a new Backbone toolkit for rapidly prototyping new reports. It is currently improving productivity for teams in New York, Norwalk and London.

UNIVERSITY OF ROCHESTER HCI LAB

JUNE 2011 - MAY 2012

RESEARCH FELLOWSHIP WITH XEROX

ROCHESTER, NY

- Our project provided economically viable real-time audio transcription for hearing-impaired internet users. Personal contributions were recognized through a Xerox Fellowship.
- Developed PHP-API for Amazon Mechanical Turk which allowed easier integration of external data-sources and enhanced real-time processing capabilities.
- Participated in project planning, design, and development of services for gathering and retaining Amazon Mechanical Turk workers.

FREELANCE

CHILDHOOD - PRESENT

FULL STACK GAME PROGRAMMER

ROCHESTER, NY

- Created a new interface to an online game, Kings of Chaos, to enhance and improve fundamental gameplay.
- Provided real-time analytics comparing 800+ registered users over 5 years.
- Wrote bots to simulate human interaction, automating every aspect of gameplay. Required header-spoofing, captcha cracking, and basic NLP. (Don't tell the admins!)

## CONFERENCES

---

### The Nitty Gritty of Adaptive Video Transmuxing

EmpireJS, 2016

A 30 minute presentation on strategies for efficiently transmuxing video for improving the time to first frame. The core principal is switching from batch computation to streaming. I discuss why Communicating Sequential Processes (CSP) works as a strong alternative to streams with back pressure.

## PUBLICATIONS

---

### Real time Captioning by Non-Experts

Nominated for best paper in the the 25th Annual UIST Conference 2012: 23-34

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

Published by the 26th Annual AAAI Conference 2012

## OTHER CONTRIBUTIONS

---

- CIO of Beach Recovery Foundation, non-profit working to reverse human effect on beach erosion
- CTO of Simplify Reality, distills current events into 400 word summaries for millennials
- Maintainer of Google's Karma repository, a javascript test runner
- Code contributor to Google's Shaka repository, a DASH video player
- Code contributor to Blender, the open-source 3D modeling engine
- Art contributor to Planeshift, the first open-source 3D mmorpg
- Security research for KingsOfChaos.com, helping to mitigate a slowloris attack
- Consultant for AI-Coin, a bitcoin variant which sacrifices decentralization for sub-second transactions
- Member of think-tank for MiMedia, a Brooklyn based startup for cloud storage of media

## LISTS

---

- **Job Experience:** Javascript, Python, C++, Java, Node, Storm, and git
- **DB's in Prod:** Redis, Mongo, PostgreSQL, MySQL
- **Fun Stuff:** Haskell, Starcraft, TypeScript, Database Design, CUDA
- **Not lovin' it:** tabs, Flask, lag, Angular, Pager Duty
- **Favorite Places:** New York, New York, Puglia, Turks'n Caicos, Tamarindo, Buenos Aires,