

Mark Torrance

Chief Technology Officer

Phone: 408 420-9239

Email: marktorrance@gmail.com

Website: [linkedin.com/in/marktorrance](https://www.linkedin.com/in/marktorrance)

26 years of executive leadership, product and engineering strategy, engineering management, and hands-on software development including machine learning, big data, online advertising, robotics, user centered design, and data visualization

Experience **Cox COMET** – Online advertising exchange 5/2018 - present

Chief Technology Officer and SVP Engineering

- Managed entire 30-person technology and product teams including Big Data, Analytics, Machine Learning, Web Apps, QA, TechOps, and Product Management
- Responsible for real time systems driving \$45m annual run rate in top line revenue
- Grew net revenue by over 2.5x in a 2 month period through engineering optimizations, to \$10m run rate
- Designed and implemented “bid checker” tool for inspecting and optimizing OpenRTB 2.5 protocol communications with partner SSPs and DSPs
- Oversaw + provided technical guidance for internal projects including cross-device identity graph, Amazon Redshift, A/B testing framework, replacing Flume with Kafka
- Led improvements to engineering culture + deployment practices including Agile, Scrum, sprint planning, weekly deployments, continuous integration, github, code reviews + required reviews by codeowners
- Led technical and business evaluation of vendors including Looker, WhiteOps, Forensiq, Google Cloud Vision, Personagraph, Amazon Web Services
- Led culture reinvention effort to improve morale and departmental relations
- Oversaw upgrades + migration of Hadoop and Spark to new versions and distributions
- Administered PIPs for underperforming employees, managed several out

Rocket Fuel – Online advertising performance DSP and DMP 9/2009 – 12/2017

Chief Technology Officer

- Hired and managed 70-person Machine Learning, AI/Optimization, Web Apps teams from 20 people through IPO. 4 years of 145% CAGR, 1200 people, \$400mm+ revenue
 - Invented and managed development of core technology including machine learning based predictive models, multi-objective optimization, automatic pacing, bid strategy, global margin controls and fully automated model A/B testing resulting in “CPA” performance 8x better than Google
 - Managed onshore engineers in 3 offices plus offshore contractors through 2 firms
 - Invented and built key visualizations: marketing that learns, bid landscape, audience inspector, model attributes, analyze w/ pivot table, conversions globe
 - Instrumental to over \$50m in sales in over 200 strategic meetings with executives at customers including P&G, Mazda, Group M / WPP, Microsoft, BMW, Chase, Citi, Amex; also prospects, investors, industry and financial analysts including Forrester and Gartner
 - Wrote thought leadership pieces on LinkedIn, Ad Exchanger, and other industry publications, and serve as Chief Scientific Advisor of the Rocket Fuel Institute
 - Served as tech and strategic advisor as member of eStaff reporting directly to 2 CEOs
 - Led Architecture Review Committee to discuss all major engineering initiatives
 - Organized and led monthly Innovation Council including management of product development backlog for advanced R&D project work by both Labs and regular engineering teams, including participation by CEO and heads of Product and Engineering
 - 3 issued patents for inventions related to first party cookies in advertising
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Vinq – 40-person profitable web design and development consultancy 2002 - 2009
Founder / CEO / Principal Consultant

- Designed and built RADAR Mail for SRI as working demonstration of DARPA funded tech (sister project to Siri), employing AI and ML in a new custom web email client. Jointly own the IP. \$4m
- Designed and built Prior Art Workbench for Stanford Tech Licensing Office for patent research. \$2m
- Redesigned RWJF.org website for Robert Wood Johnson Foundation. \$1.5m
- Designed and built KnowledgePlex CMS, and DataPlace open source GIS tool like Claritas, for Fannie Mae Foundation. Subcontractor Placebase became Apple Maps team. \$50m over 6 years

Knowmadic – Business process workflow and web scraping for energy sector 2000 - 2002
Chief Technology Officer

- Managed team building web scraping and business process workflow software for Energy sector, enabling applications for Enron, Bonneville Power Association, Cinergy and others
- Designed and built desktop UI in Java for business process workflow, OCR
- Pitched to VCs and secured Series A funding from Hummer Winblad and 3i

StockMaster.com – *First finance site on the web.* One of first 500 sites 8/1993 – 6/2000
Founder / CEO

- Grew from 0 to 1 million average daily unique users, averaging 50 page views per session
- Secured advertising revenue and sponsorships from E*Trade, Datek, Schwab, and other early online brokerage firms
- Built robust investor relations business with 30% of Fortune 500 as clients
- Diversified revenue streams 50% from advertising, 50% from investor relations business
- Hired and managed 9 direct reports at VP or COO level
- Worked with independent board of directors, with regular meetings and reporting
- Grew to 80 employees; Sold for \$77m stock to Red Herring in March 2000

Skills Product and Technology Strategy, Management, Innovation, Rapid Prototyping, Agile, Lean Startup
Big Data: Hadoop, Hive, HBase, Apache Spark, MLLib, Big Data, Deep Learning, Regression Models
Languages and Frameworks: Java, Scala, JavaScript, Ruby, Node.js, React, Vue, Rails, Perl, d3, git, Vertica
Design: User Centered Design, UX, Interactive Data Visualization, Nielsen-Norman principles
Gallup Strengths: Strategic, Ideation, Maximizer, Futuristic, Winning Others Over

Education **Massachusetts Institute of Technology** – S.M. EECS 1994
Thesis *Natural Communication with Mobile Robots*. NSF Scholar
Demonstrated English conversation with mobile robot driving around office environment
“All-but-dissertation” completed in Ph.D. program through 1996, on “intelligent room”
Active Notebook AAAI Spring Symposium paper based on work at Sun Labs with Bill Woods

Stanford University – B.S. Symbolic Systems 1991, with distinction. AI concentration
Implemented Teleo-Reactive Trees, NeXT machine robot simulations, and Agent Oriented Programming demos for Nils Nilsson, Yoav Shoham, Stan Rosenschein

Patents

Identifying Mobile Application Installations	Apr 8, 2014	US 9785974
First Party Cookie Attribution	Oct 14, 2013	US 9875485
Method of Storing a Web User ID in First Party Cookies	Jul 2 2013	US 9641632
Multilingual Agent for Use in Computer Systems	Jul 26 1996	US 6615168
