
VP | DATA SCIENCE, RESEARCH, & ENGINEERING

Accomplished executive leader and technological innovator, industry leader in controlled experiments, machine learning, search, personalization, and AI. Leads, motivates, recruits, and mentors high-performing teams, including Relevance & Experimentation at Airbnb, Analysis & Experimentation at Microsoft, and Data Mining and Personalization at Amazon.

Executive Leadership	Machine Learning & AI	Data Science & Research
Cross-Functional Team Development	C-Level Communications	Personalization
Technological Evangelist	Controlled Experiments / A/B Testing	Agile Software Development

CAREER HIGHLIGHTS

- Enabled the discovery of surprising new ideas using controlled experiments across Microsoft, which improved the user experience and increased revenues by hundreds of millions of dollars annually.
- Led Relevance and Experimentation at Airbnb, which delivered 6%+ improvements to booking conversion, worth hundreds of millions of dollars annually.
- Led Data Mining and Personalization at Amazon, where new ideas improved personalization and generated annual incremental revenues of hundreds of million dollars.
- Successfully evangelized data-driven software development using rigorous controlled experiments at Amazon and 15+ major product groups at Microsoft.
- Founded the ExP team at Microsoft and grew it as a startup within Microsoft to more than 110 data scientists, developers, and program managers. The team built the experimentation platform and provided a center of excellence for experimentation.
- Named a Technical Fellow and Corporate Vice President at Microsoft, one of about 40 Technical Fellows among 250 VPs of 140,000+ Microsoft employees (<0.2%).
- Co-authored [Trustworthy Online Controlled Experiments: A Practical Guide to A/B Testing](#) (2020), rated 4.7/5.0 on Amazon with over 250 ratings. [Chinese](#) and [Japanese](#) translations available. The book is commonly in the top-10 data mining best sellers on Amazon.
- Extensive publication history, with more than [55,000 citations](#), three machine learning papers in the [top 1,000 most-cited papers in Computer Science](#), best paper award, and [Harvard Business Review article](#).
- Named the [5th most influential scholar in AI](#) and the 26th in Machine Learning by AMiner (2016).
- Introduced practical improvements to the theory and scale of controlled experiments that have been published in peer-reviewed articles and implemented by other companies.
- Granted 15 patents in Machine Learning, Visualization, and Experimentation.
- Received [Individual Lifetime Achievement Award for Experimentation Culture](#), Sept 2020.

WORK EXPERIENCE

Consultant*12/2021-present*Consulting and teaching ([ScholarSite class](#))**AIRBNB****Vice President and Technical Fellow and Consultant***11/2019 - 11/2021*

- Led Relevance and Experimentation, a team of world-class engineers and data scientists that included two principals and ten senior staff members. The team delivered 6%+ improvements to booking conversion from about 20 successful product changes out of over 250 ideas that were tested in controlled experiments.
Surfaces impacted include search, product detail page, home page, post-booking cross-sells, and email. See [Improving Deep Learning for Ranking Stays at Airbnb](#).
- Improved data-driven decision making by increasing use of controlled experiments, helped design the OEC (Overall Evaluation Criterion) and OKRs (Objectives and Key Results) for multiple teams, improved experimentation processes and trust, helped build near-real-time experimentation for safe deployments, analyzed hundreds of experiments. See [Designing Experimentation Guardrails](#).

MICROSOFT**Technical Fellow and Corporate Vice President | Analysis & Experimentation | Cloud & AI** *09/2018 – 11/2019***Distinguished Engineer and General Manager | Analysis & Experimentation | AI & Research** *3/2014 - 08/2018*

- Evangelized data-driven software development using rigorous controlled experiments at Microsoft, enabling improvements in user experience and surprising ideas that generated incremental revenue of hundreds of millions of dollars.
- Grew the experimentation platform (ExP) team to over 110 Data Scientists, Developers, and Program Managers to accelerate innovation at Microsoft through trustworthy analysis and experimentation.
- The platform is now used to run 25,000+ experiment treatments per year (about 100 new per workday) across more than 15 major Microsoft product groups, including Bing, Edge, Exchange, Identity, MSN, Office client, Office online, Photos, Skype, Speech, Store, Teams, Windows, and Xbox.
- Oversaw data scientists for Microsoft's center of excellence for analysis and experimentation.

Partner Architect | Bing | Online Services Division*10/2010 - 03/2014*

- Enabled trustworthy and scalable experimentation at Bing, championing metrics, processes, and algorithms that improved trust, and provided clear data for decision-making.
- Introduced A/A tests, correctness tests, variance reduction techniques, and Overall Evaluation Criterion (OEC) for user-experience vs. revenue tradeoff (Ship User Value).
- Designed and helped execute an important slowdown experiment that showed the value of performance for Bing: every 10 milliseconds improvement in server performance generates incremental profit to fund an engineer.

General Manager | Experimentation Platform

06/2005 - 10/2010

- Founded the Experimentation Platform team, later merged into Bing, enabling the scalable execution and analysis of controlled experiments on websites and services at Microsoft.
- Developed and led the Dev, Test, PM, Analyst, Ops, and Support teams, comprising 50 high-performing members, including six principal-level team members.

AMAZON

09/2003 - 06/2005

Director | Data Mining & Personalization

- Headed multiple teams, including ad automation (SEO/SEM), consumer behavior/data mining, experimentation, automated email, and two personalization teams.
- Introduced multiple features with total incremental revenue of several hundred million dollars.
- Grew Amazon's Data Mining & Personalization organization from 50 to 90+ people.

BLUE MARTINI SOFTWARE**Vice President | Business Intelligence, Senior Director | Data Mining Applications**

10/1998 - 07/2003

- Led the Analytic Services and Business Intelligence Sales Demo teams throughout Blue Martini's IPO in 2001.
- Led engineering team responsible for data collection, transfer (ETL), analysis, reporting, visualization, and campaign management for Blue Martini's product suite.
- Designed, architected, and performed initial Java coding for data mining, reporting, and data transfer modules.
- Joined the startup as employee Number 10.

PAST WORK EXPERIENCE**Silicon Graphics, Inc.** | Manager | MineSet

1995 – 1998

Stanford University | Project Leader, MLC++, the Machine Learning Library in C++

1993 - 1995

IBM Research Center | Software Developer | Verification Group (intern, continued afterwards)

1991

Israeli Defense Forces | Computer Center Manager and Software Developer | Lieutenant

1985 - 1988

Selected Publications and Keynotes

- A study of cross-validation and bootstrap for accuracy estimation and model selection (1995), over [14,000 citations](#).
- Wrappers for feature subset selection (with G. John, 2017), [top 300](#) most cited paper in Computer Science; over [10,000 citations](#).
- Book: [Trustworthy Online Controlled Experiments: A Practical Guide to A/B Testing](#). Co-author with Diane Tang from Google and Ya Xu from LinkedIn.
- [The Surprising Power of Online Experiments](#) (with S. Thomke) Harvard Business Review (2017).
- [Online Controlled Experiments: Lessons from Running A/B/n Tests for 12 years](#), KDD 2015 Keynote.

EDUCATION

STANFORD UNIVERSITY: Ph.D. Machine Learning, Computer Science | 1991-1995

Passed Ph.D. qualifying exam with distinction.

TECHNION, Israel: Bachelor of Arts, Computer Science, Summa Cum Laude | 1988-1991

President's award (top 5%) three times (each year of degree).

[LinkedIn Recommendations](#) (Excerpts)

[Randy Henne](#), Partner Data Science and Engineering Manager, Microsoft

Ronny has led Microsoft from a company that dabbled in Online Experimentation to one of the primary Experimentation Centers of Excellence in the world. As an organizational leader, many of us find that we can do our best work for him. This is because of the ideas and traits he champions: Experiment!, Candor, Don't be afraid to face bad news, make strategy explicit through goals and metrics, the value written communication over fluffy presentations, hire the best, it's everyone's job to dive into the details, and integrity is non-negotiable. As a direct manager, I started working on one of Ronny's teams 15 years ago; I've clearly collected the data... I strongly recommend Ronny as an executive leader and manager.

[Paul Ellwood](#), Director, Data Strategy, Airbnb

It might be impossible to overstate how talented Ronny is as a champion for a data-driven culture. We partnered closely at Airbnb; I led company-wide efforts to improve our data quality, while he led the Experimentation function & our Search Relevance org, both of which heavily depended on our data. Ronny's passion, vision, expertise, and clarity of thought & communication made him a transformational figure for the company. He is an insightful mentor from whom I hope to continue learning. If your company is striving to increase its success through data, I strongly encourage you to seek out Ronny.

[Ricardo Bion](#), Director, Data Science, Airbnb

I was lucky to work closely with Ronny for 1.5 years at Airbnb, and can attest to his transformative impact at the company.

While at Airbnb, Ronny hired outstanding people, built a stronger experimentation culture, dove into the details of complex technical work, and delivered substantial business impact.

Ronny is a visionary leader with unparalleled work ethics, business acumen, and technical skills.

I strongly recommend him to any company that is interested in becoming more data driven!

[Ali Rauh](#), Senior Data Science Manager, Airbnb

Leading Marketplace Dynamics Data Science, I was fortunate to collaborate with Ronny...I have been deeply inspired by Ronny and am simply astounded by what he has accomplished over the last 1.5 years

[Mihajlo Grbovic](#), Senior Staff Data Scientist, Airbnb

First time in my 10+ year carrier that I have seen that a manager can bring such a drastic change to the team for the better in such a short time... he drastically improved collaboration within the team, ...team planning, feedback and execution with his backlog reviews, planting idea seeds with "Ronny half baked ideas"...I have learned so much from him and will be forever grateful to him for his leadership.

[Malay Haldar](#), Senior Staff Machine Learning Engineer, Airbnb

It is so rare to meet a leader of Ronny's calibre, even a few months with him can teach you skills that can last a lifetime. The dramatic way in which Ronny transformed the team at Airbnb is something I feel fortunate to be part of...

[Peter Coles](#), Data Science Lead, Central Strategy & Insights, Airbnb

I cannot understate the value of Ronny's contributions at Airbnb in his tenure here... In short, Ronny is a technical and business expert who will serve as a "truth serum," and who will elevate the company and inspire those around him.

[Shao Xie](#), Head of Analytics Infrastructure, Airbnb

Ronny is a visionary leader and a maestro in Experimentation...He always aims high and doesn't settle for just good enough... Overall, it's been a great experience working with and learning from Ronny and I definitely hope our paths will cross again in the future.

[Lianghao Li](#), Senior Staff Software Engineer, Airbnb

Extremely strong leadership is the phrase that comes to mind when I think about Ronny. I have been deeply inspired and impressed by Ronny's sharpness, persistence and humbleness. I have been at 5 different orgs in Google/Airbnb and worked for many VPs/SVPs there...Ronny is definitely the strongest lead I have worked for during my career.

[Xiaoxin \(Aaron\) Yin](#), Senior Staff Software Engineer, Airbnb

Ronny is a great executive leader, both in term of driving the team and in keeping Airbnb informed with data insights.

[Nan Li](#), Staff Software Engineer, Airbnb

It has been a transformative experience working with Ronny! The way he re-shaped the Relevance team and Airbnb at large has been nothing short of incredible, and I feel so fortunate to be part of the journey. Ronny led the Relevance team at Airbnb to achieve amazing success and impact, and beyond that, brought tremendous data-driven aptitude and statistical rigor to so many teams and organizations across the company. His leadership and mentorship will have a profound influence on many of us for years to come.

[Tatiana Xifara](#), Senior Data Scientist, Airbnb

Ronny set an example of strong leadership at Airbnb...It is really remarkable how we can lead a team but also pay attention to detail, create a data-driven culture for all functions and be a mentor at the same time... Ronny is a great leader and would be a great asset for any company. I feel lucky we have crossed paths and am grateful for everything I learned from him.

[Roger Longbotham](#), Principal Data Scientist, Microsoft

... very effective leader, driving the Experimentation Platform team to the highest standards of hiring, technical performance and quality of service to our customers. Ronny has a rare combination of technical ability, common sense and extremely high energy to bring the best out of a high performing technical team.