

# Paul Borza [paw:l 'bɔr,za]

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Rubik's cube aficionado. Hackathon buff with a passion for building data-driven products. Software engineer with a full-stack understanding of search engines. MBA student.



## Experience

Microsoft, Bing UX Foundation

**Senior Software Engineer, Technical Lead – Cross Platform Development**

Bellevue, Washington

Jul. 2016 – Present

Pioneering cross-platform development on iOS, Android and Web; not only a first for the Bing organization, but for the industry as well. Shipped Who's In as proof of concept which was picked up by 25+ news outlets, including TechCrunch and The Verge.

**9 patents** filed with the United States Patent and Trademark Office

10/2010 – 10/2016

Microsoft, Bing Customer Experience Analytics

Senior Software Engineer, Technical Lead – *Bing Stability*

Bellevue, Washington

Dec. 2014 – Jul. 2016

Software Engineer 2 – *User Experience, Data Mining, Insights and Stability*

Sep. 2012 – Dec. 2014

Lead the Bing Stability V-Team of 50+ engineers for the past two years and a half. Not only achieved but surpassed the commitments taken in front of Corporate Vice Presidents in five consecutive six-month milestones. Designed the Bing Stability metric to be a measurement of both relevance and engineering excellence. Coordinated and delivered technical fixes in the stack which improved the stability of Bing from 88% to >98%, on par with Google. Team redesigned load balancers, caching techniques, object stores, threshold/timeout-based algorithms, unstable features, classifiers and non-deterministic rankers.

Microsoft Search Technical Center Asia, Business Trip

Beijing, China; 3/2015

Microsoft-wide Hackathon, **4<sup>th</sup> Prize**

2/2014

Microsoft-internal Bing Hackathon, **Mentor, 3<sup>rd</sup> Place** (out of 53)

11/2013

Microsoft-internal Bing Innovation Awards, **3<sup>rd</sup> Place** (out of 56)

10/2013

Microsoft-internal Bing Hackathon, **2<sup>nd</sup> Place** (out of 65)

7/2013

Microsoft-internal Bing Science Fair, **Best Business Value Winner** (out of 72)

5/2013

Microsoft-internal Bing Hackathon, **1<sup>st</sup> Place** (out of 93)

11/2012

Seattle Give Camp, Technical Volunteer

Redmond, Washington; 10/2013

Microsoft, Bing Image and Video Search

Bellevue, Washington

Software Engineer 2 – *Instrumentation, Metrics and A/B Testing*

Jul. 2010 – Sep. 2012

Microsoft-internal Bing Intern Hackathon, **Mentor, 3<sup>rd</sup> Place**

7/2012

Microsoft-internal Bing Hackathon, **Judge**

11/2011

Microsoft-internal Bing Hackathon, **1<sup>st</sup> Place** (out of 42)

6/2011

Microsoft University Careers, Eastern Europe Recruiting Events

Bucharest, Romania and Sofia, Bulgaria; 2/2011

AnswerJoy, Massively Multiplayer Online Trivia Game

Cluj-Napoca, Romania

**Co-founder** – *Full Stack Engineering*

2008 – 2010

Co-founded AnswerJoy, a massively multiplayer online trivia gaming platform. Featured on Microsoft.com as *Startup of the Day* on Nov. 13, 2009. Licensed, and later acquired, AnswerJoy was implemented in the Romanian market as the Illuminatus brand.

Microsoft, Bing Image and Video Search

Redmond, Washington

**Software Engineer Intern** (total of 50 international interns) – *Data Mining Internet Explorer Logs*

Jul. – Sep. 2009

Jožef Stefan Institute, Center for Knowledge Transfer in Information Technologies

Ljubljana, Slovenia

**Software Engineer Intern** – *Audio Indexing*

Jul. – Sep. 2008

<b>Google Summer of Code</b> , Openmoko Software Engineer Intern – <i>Recognizing Accelerometer-based Gestures</i>	Apr. – Sep. 2008
Microsoft Developer Network, <b>Author, 4 Articles</b>	4/2006 – 12/2007
Microsoft Imagine Cup, <b>Worldwide Finalist</b> in Software Design	Seoul, South Korea; 8/2007
Recruited and lead a team of four college students to win the national finals of Imagine Cup two years in a row, in 1 <sup>st</sup> and 2 <sup>nd</sup> year of college, representing Romania to the European and Worldwide finals. Pitched projects in front of judges worldwide.	
Microsoft Imagine Cup, National Finals <b>1<sup>st</sup> Place</b> in Software Design	Timișoara, Romania; 5/2007
Microsoft Imagine Cup, <b>Central and Eastern Europe Regional Finalist</b> in Software Design	Maribor, Slovenia; 5/2006
Microsoft Imagine Cup, National Finals <b>1<sup>st</sup> Place</b> in Software Design	Cluj-Napoca, Romania; 4/2006
Brooktrout Extreme Code Makeover Contest, <b>1<sup>st</sup> Place</b>	3/2006
Siemens Program and System Engineering, Scholarship	11/2005 – 6/2006
Microsoft Imagine Cup, National Finals <b>3<sup>rd</sup> Prize</b> in Software Design	Iași, Romania; 4/2005
Olympiad, National Finalist in Informatics	Galați, Romania; 3/2005
Unirea National Programming Contest, Participant	Focșani, Romania; 1/2005
Olympiad, National Finals <b>4<sup>th</sup> Prize</b> in Informatics	Buzău, Romania; 4/2004
Component Source Speech Control Contest, <b>1<sup>st</sup> Place</b>	6/2003
Olympiad, National Finalist in Informatics	Focșani, Romania; 4/2003
Ștefan Odobleja National Programming Contest, <b>2<sup>nd</sup> Place</b>	Craiova, Romania; 4/2003

## Side Projects

Startup Sort, Data-driven <b>Job Search Engine</b> for Software Engineers	4/2015 – Present
Patented novel startup ranking algorithm which sorts startups by likelihood of becoming the next Facebook. Collects signals like size, funding, traffic, breaking news etc. on which machine learning techniques are applied to estimate future growth; built with nginx, Docker, Node, Elasticsearch, Redis and Scrapy. <a href="https://StartupSort.com">https://StartupSort.com</a>	
Cube Tutorial, Augmented Reality <b>Rubik's Cube Solver</b> for Chrome, Firefox and Internet Explorer	3/2014 – Present
Viola-Jones object detection, Hough transform, Canny edge detection and Sobel operator implemented in pure JavaScript; optimized for Chrome's V8 engine after discussing real-time optimization problems with Google engineers on Stack Overflow. The Haar cascade classifier was trained on 2,500 positive and 1,500 negative photos; reached 68% precision and 76% recall on a 24x24 window with a 13-stage Real AdaBoost classifier. <a href="https://CubeTutorial.com">https://CubeTutorial.com</a>	

## Education

University of Washington, Foster School of Business Master's Degree in Business Administration – <i>Evening MBA</i>	Seattle, Washington 9/2017 – Present
Babeș-Bolyai University of Cluj-Napoca Master's Degree in Computer Science – <i>Major in Machine Learning</i>	Cluj-Napoca, Romania; 10/2008 – 7/2010 GPA: 9.94; Rank: <b>1</b> (out of 12)
Continuous density hidden Markov models, self-organizing maps and Fourier transform implemented in C; reached 94% accuracy in recognizing gestures and walking patterns with accelerometers. <a href="https://borza.ro/docs/gesture-recognition.pdf">https://borza.ro/docs/gesture-recognition.pdf</a>	
Babeș-Bolyai University of Cluj-Napoca Bachelor's Degree in Computer Science	Cluj-Napoca, Romania; 10/2005 – 7/2008 GPA: 9.85; Rank: <b>2</b> (out of 85)

**Technical Skills** Ansible, big data, C#, Cosmos, CSS, D3, Docker, Elasticsearch, Express, git, Grafana, HTML, JavaScript, machine learning, MongoDB, nginx, Node, OpenCV, performance optimizations, Postgres, PowerShell, Prometheus, PySpark, RabbitMQ, rapid prototyping, React, React Native, Redis, SCOPE, Scrapy, SQL, Swift, TypeScript; Vim.

**Dual Citizenship** Romania and United States of America