Alireza Tahmasebzadeh (Ali Tahmaseb)

Born in 1993 (22 years old).

Extremely passionate about Human Computer Interaction.

Lives in London, United Kingdom and Palo Alto, California

Bio-medical Engineering (BEng Honors), Imperial College, London, United Kingdom.

Founder, Blocks Wearables LTD

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Research Interests

Next Generation User Interfaces, Human-Computer Interaction, Brain-Computer Interfaces, Neural Interfaces, Entrepreneurship, Start-Ups.

Education

Imperial College, London, United Kingdom **September 2012 – June 2015**

B.Eng., Biomedical Engineering, Department of Bioengineering.

- ***First Class Degree all years***

University of Tehran, Tehran, Iran **September 2011 – June 2012**

B.Sc., Electrical Engineering, Department of Electrical and Computer Engineering.

- *Left after two terms to start Biomedical Engineering at Imperial College*
- ***GPA: 19.30 out of 20*** *(Ranked First of 210 among all Electrical Engineering, Computer and IT students)*

Academic Experience

[3] **Research Assistant, Human Robotics Lab** **October 2014 – June 2015**

Researching on hand and finger motion detection. Supervisor: Prof. Etienne Burdet

[2] **Teaching Assistant**, Imperial College London, United Kingdom **January 2013 – June 2013**

Brain-Machine Interfaces Course for M.Sc. students *Lecturer: Carsten Mehring*

[1] **Research Assistant, Brain-Machine Interfaces Lab** **December 2012 – June 2013**

Researching on non-invasive methods for EEG BCI. Supervisor: Dr. Carsten Mehring

Work Experience

[2] **Inventor and Founder of BLOCKS Wearables** **December 2013-Present**

BLOCKS is the world's first modular and open-platform smart-watch **CHOOSEBLOCKS.COM**

- Raised over **$1,000,000** funds through investments and grants
- Raised over ***$1,000,000 from pre-sales*** through kickstarter in one week
- Winner of the prestigious **Reddot Best Design Concept Award**, 2015.
- Awarded **most disruptive start-up** pitching to the **Duke of York Pitch@Palace**
- Finalist at **Mayor of London Low Carbon Competition**
- **People's Choice Award Intel's** Make It Wearable Challenge

- Featured at world's most well-known tech magazines and websites, such as **BBC, CNBC, Guardian, The Telegraph, Forbes, *Wired, TechCrunch, Engadget, Gizmag, DigitalTrends, Yahoo*.**
- Selected as the **game changers** for wearable technology in 2015.
- Selected as the **best student start-up** of the year 2014, Imperial Innovations.
- Selected as **Third hottest start-up** in wearable technology by wearable.com
- More than **500,000** viewers and over **100,000** unique sign-ups
- Finalist at Imperial College **Venture Catalyst Challenge**
- Nominated best start-up **Wearable Technology Show Europe,** March 2014**.**
- Finalist of **Seedstars World, European Innovation Academy Summer School, British Fashion Forum**.
- Presented in **TEDxImperialCollege, TEDxKPMGLondon**, **TEDxTehran**

[1] **Teacher of Advanced Physics** **October 2010 – June 2011**

Preparation for National Physics Olympiads in various high schools such as *Allameh Tabatabaei, NODET Esfahan, NODET Qom*

Honors and Awards

Imperial College Medal for Outstanding Achievement, Aug. 2014. Awarded to one undergraduate each year by the president of Imperial College.

Centenary Enterprise Award Imperial College, equal to $1700 Aug. 2014

Winner Wearable Technology Hackathon London May. 2014.

Travel Award, **Imperial College Trust**, equal to $650 Oct. 2013.

Travel Award, **Old Centralians' Trust**, equal to $850, Oct. 2013.

Selected as the Juror of the 5th **Persian Young Physicists' Tournament** (PYPT2012)

Research Award, **Iranian Elite Association**, equal to $2500, June 2012.

Second Place 13th **National Khwarizmi Youth Innovations Award**, Tehran, Iran, 2012.

Silver Medalist of the 24th **International Young Physicists' Tournament** (IYPT 2011)

Gold Medalist of the 23rd **National Physics Olympiad**, Tehran, Iran, 2010.

Golden Certificate of the 3rd **National Student Contest**, Sharif University of Technology, Tehran, Iran, 2010.

Selected as the **Persian Young Physicist** in Persian Young Physicists' Tournament (PYPT 2010)

Bronze Medalist of the 19th **National Informatics (Computer) Olympiad**, Tehran, Iran, 2009.

First Place **National Robotic Contest** in maze - (NAD cup 2006)

Patents

[3] PLUS a number of undisclosed patents for my company, BLOCKS Wearables

[2] US Provisional Patent, *WRIST AND FINGER GESTURE DETECTION BY SENDING AND RECEIVING ELECTRICAL SIGNALS IN THE SKIN*, **Alireza Tahmasebzadeh**, 2015.

[1] I.R Iran Patent No. 42210, *PERSIAN NUMERALS DIGITAL SEGMENT DISPLAY*, **Alireza Tahmasebzadeh**, granted August 2007.

Books

Tahmasebzadeh, Alireza. *Physics Olympiads in Iran – Second Stage*. Tehran: Khoshkhan (Publisher), 2011. Print 240 pages.

- *Sole authored book: Preparation for the second stage of the Iranian Physics Olympiads sold 20,000+ issues*

Publications

[7] **A. Tahmasebzadeh**, K. Nazarpour, "On the optimization of a non-linear Bayesian Filter for surface EMG drive estimation", *Proceedings of the* 36th *Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Chicago, USA (IEEE EMBC2014)*.

[6] **A. Tahmasebzadeh**, "Distance Associated Human Error in P300 Speller Paradigm Brain-Computer Interfaces: Abstract", *Transactions of Japanese Society for Medical and Biological Engineering, Vol. 51. doi: 10.11239/jsmbe.51.U-9*

[5] **A. Tahmasebzadeh**, M. Bahrani, K. Setarehdan, and C. Mehring, "Development of a Robust Method for an Online P300 Speller Brain Computer Interface", *International IEEE EMBS International Conference on Neural Engineering San Diego, USA (IEEE EMBS NER 2013)*.

[4] **A. Tahmasebzadeh**, "Distance Associated Human Error in P300 Speller Paradigm Brain Computer Interface", *Proceedings of the* 35th *Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Osaka, Japan (IEEE EMBC2013)*.

[3] **A. Tahmasebzadeh** and R. M. Namin, "Motion of Stabilized Magnetic Levitating Systems", *Proceedings of the 2010-11 IYPT, pp. 235-240, July 2012.*

[2] **A. Tahmasebzadeh**, "Domino Effect Motion Investigation: A numerical Approach", *Proceedings of the 2010-11 IYPT, pp. 220-227, July 2012.*

[1] R. M. Namin, **A. Tahmasezadeh**, "Evaluation of the Efficiency of Incandescent Light Bulbs", *Proceedings of the 2010-11 IYPT, pp. 246-250, July 2012.*

Invited Talks

[7] **"What if technology could be personalized for you?"** TEDxTehran, Tehran, Dec. 2015

[6] ***"Thinking in Blocks: The future is modular!"*** TEDxKPMGLondon, KPMG Offices, London, Feb. 2015.

[5] **"The Future of Wearable Technology",** StrategyEye Talk, Feb. 2015.

[4] "***Thinking in Blocks: Towards Modular Consumer Electronics***", Apps World Conference Europe. Excel, London, Nov. 2014.

[3] "***From a Modular Smartwatch to Big Data***", Big Data Annual Meetup. London. Oct. 2014.

[2] "***Neural Interfaces, Past, Present and Future***", IET Present Around The World Regional Event. March 2014.

[1] "***Neural Interfaces: from single unit recording to cutting-edge gaming neuro-gadgets,***" Department of Electrical and Computer Engineering, University of Tehran. Jan. 2014.

Workshops Organized

[2] "***Controlling with Thoughts,***" TED MED Live Imperial, Imperial College London, United Kingdom. Apr. 2013.

[1] "***Understanding the Brain,***" University of Tehran, Biomedical Engineering Student Branch, Tehran, Iran, Feb. 2012.

Workshops Attended

[11] "Advanced Neuro-technology for Brain Initiative", IEEE EMBC, Chicago, USA, Aug. 2014.

[10] "Non-Invasive Brain Stimulation", Meeting of the Minds Neuroscience Conference, London, UK, Feb. 2014.

[9] "Intellectual Property and Patenting", Bird and Bird LLP, London, UK, Nov. 2013

[8] "International Symposium: Problems at Neural Interfaces", National Science Foundation, San Diego, USA, Nov. 2013.

[7] "Cognitive Neuroscience Summer School," School of Cognitive Sciences, IPM, Tehran, Iran, Sep. 2013.

[6] "International Neuro-technology Consortium Workshop: Neuro-Diagnostics, Neuro Therapeutics, Imaging and Grand Challenges", IEEE EMBS, Osaka, Japan, Apr. 2013.

[5] "Insight into Silicon Valley," Visiting tech companies: Microsoft, Skype, Google, Facebook, Dropbox, Plug n Play Tech Centre, San Francisco, USA, Apr. 2013.

[4] "*Entrepreneurship and Business Management,*" AIESEC, Tehran, Iran, Jul. 2012

[3] "*Introduction to Microprocessors and AVR,*" Mechatronics Association, University of Tehran, Tehran, Iran Jun 2012.

[2] "*Electrical Engineering Techniques in Neuroscience,*" Iranian Conference on Electrical Engineering (ICEE 2012), Tehran, Iran, Jun. 2012.

[1] "*Introduction to Electrophysiology and Single Unit Recording of Brain Signals,*" ScienceBeam Institute, Tehran, Iran, Mar. 2012.

skills

Computer Skills: C, Visual C, VB, MATLAB, Python, Java, SolidWorks, AutoCAD, MuPad, Mathematica, Microsoft Office, LaTeX

Extra-Curricular Activities

***Languages*:** English (fluent: TOEFL iBT 105/120) – Farsi/Persian (native) – Azeri (Intermediate), Turkish (Elementary), French and Arabic (Familiar)

Sports: Skating (Professional: Gold Medal Speed Skating and Bronze Medal Figure Skating), Tennis, Swimming, Squash

Other Interests

Modern Philosophy, Philosophy of Mind, Evolution, Neo-Darwinism and Universal Darwinism Theory, Memetic Theory, Traditional Iranian Music, Writing Poems in Persian, Theater

REFERENCES

Prof. James Moore JR, Chair of Medical Device Design and Entrepreneurship, Department of Bioengineering, Imperial College London. Email: james.moore.jr@imperial.ac.uk

Prof. Etienne Burdet, Professor of Human Robotics, Department of Bioengineering, Imperial College London. Email: e.burdet@imperial.ac.uk

Prof. Peter Weinberg, Professor in Cardiovascular Mechanics, Department of Bioengineering, Imperial College London. Email: p.weinberg@imperial.ac.uk

Dr. Angela Kedgley, Research Fellow Imperial College. Email: a.kedgley@imperial.ac.uk

Dr. Carsten Mehring, Professor, Bernstein Center Freiburg & Institute for Biology III, Albert-Ludwigs-University. Email: carsten.mehring@biologie.uni-freiburg.de

Dr. Kianoush Nazarpour, Lecturer, School of Electrical and Electronics Engineering, University of Newcastle, UK. Email: nazarpour@ncl.ac.uk

Dr. Kamal Setarehdan, Assistant Professor, Electrical and Computer Engineering Department, University of Tehran, Iran. Email: ksetareh@ut.ac.ir

Mr. Mark Hammond, Technology Associate and Create Lab Director, Imperial Innovations (Tech transfer company of imperial college),
Email: mark.hammond@imperialinnovations.co.uk