Leili Baghaei Rad

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WORK EXPERIENCE

- **Product Manager, Android**
  - Product manager focused on creating the next generation consumer-facing products at Google.
  - Define product roadmap and technical specifications, based on competitive positioning, target audience, and market trends.
  - Work with OEM/ODM partners alongside UX, BD, and Engineering teams to develop and test reference designs.
  - Work with Marketing and PR teams to define product positioning. Prepare for a flawless launch, and developed qualitative measures for post launch investment measurement.
  - Oversee CE manufacturing and hardware supply chain in Asia.
  - Previous product – Chromecast launched 24th of July 2013
    Chromecast is a digital media streaming adapter that plays audio/video content on a high-definition television by streaming it via Wi-Fi from the Internet or local network. Users select the media to play on their television from the Google Chrome web browser on a personal computer or from a supported app on their mobile device.
    http://allthingsd.com/20130730/review-of-googles-new-chromecast/

- **Product Manager, Atheertech**
  - Product manager focused on bringing next generation wearable immersive computers to the market.
  - Defined product vision and strategy.
  - Worked with customers to identify needs, gather product requirements and translate them to technical specifications and features for the Engineering team.
  - Implemented the execution schedule, engaging closely with the Engineering, Marketing, BD, UX, and Legal teams.

- **Algorithm Development Engineer, Research & Development, KLA-Tencor**
  - Conceive, implement and optimize advanced algorithms and software modules used in photomask/reticle inspection.
  - Manage relationships and work with our clients, both directly and through the Applications Group (managing a group of eight on-site and field application engineers).
  - Recipient of Spot Bonus and Manager-to-Employee award for excellent performance.

- **Advisor (COO, Co-founder and Technology advisor)**
  - Helped various early stage ventures. Worked through developing their technology and defining their business model all the way to securing funding. Twitter recently acquired one of the companies, **www.Ubalo.com.**

- **Co-founder/CEO, Abeona & AbeonaCares (www.abeonacares.org)**
  - Abeona offers regular home visits by childcare experts for families with young children. It creates an infrastructure that connects local providers to parents. Our team includes Stanford PhD graduates and doctors from Lucile Packard Children's Hospital. Combining our knowledge of machine learning, computer programming and years of practice in child healthcare.

- **Research Assistant, Stanford University** (Sep. 2007 – Sep. 2010)
  - Research into algorithms to enable the modeling and 3D reconstruction of Integrated Circuits using X-Ray Diffraction Microscopy – Imaging of extended objects with nanometer precision was achieved.
  - Mentored two undergraduates and one graduate student.
  - Established a network of researchers from Stanford University, UCLA, Riken Research Institute, Japan and Berkeley National Lab for collaboration with support from industry leaders such as Applied Materials and Texas Instruments.

- **Research Assistant, Stanford University** (Sep. 2006 – Sep. 2007)
  - Development of computational Scanning Electron Microscopy to rapidly reconstruct 3D structures with nanometer resolution – **100 fold acceleration was achieved** compared to conventional methods.

- **Research Assistant, University of Idaho** (Dec. 2004 – June. 2006)
  - Design and implementation of multiple transmit and receive antennas to increase the communication capacity of an underwater communication system.

- **Design Engineer, Tait Electronics Ltd., NZ** (Nov. 2002 – Nov. 2004)
  - Investigated new ideas for future products. Major task was to design an analog filter to reduce the wide-band noise in a delta modulator.
  - Managed a group of three Engineers.

EDUCATION

- **Stanford University, CA.**
  Ph.D. in Electrical Engineering, Sep. 2010, GPA 4.08/4.00
  Certificate, Institute for Entrepreneurship, Stanford Graduate School of Business 2010
  Certificate, Product Management, Executive Education Haas School of Business 2012
- **University of Idaho, ID.**
  M.Sc. in Electrical Engineering, Jun. 2006, GPA 3.81/4.00
- **University of Canterbury, New Zealand.**
  B.E. (Hons) in Electrical Engineering, Dec. 2004
- **Student Awards**
  - 3rd place for the Stanford Entrepreneurship Challenge (2010).
  - Outstanding poster award, 2009 SSRL user meeting, Oct 2009.

- New Zealand Federation of Graduate Women Fellowship (2009/2010)
- RIKEN (natural sciences research institute), Research Fellowship for experimental work at Spring8, Japan (2009)
- Applied Materials Fellowship (2008 and 2009)
- Texas Instruments Fellowship (2008)
- SPIE Scholarship (2008)
- J.R. Templin Scholarship, New Zealand (2005 – 2006)
- Rebecca Lynch Memorial Scholarship, New Zealand (2005)

PROFESSIONAL AFFILIATIONS

- Organizer "Industry-Academia Liaison" workshop, EIPBN 2011.
- Committee member, section head and session chair, EIPBN 2011.
- Reviewer Journal of Vacuum Science and Technology 2010 (reviewed 4 papers).
- Committee member, section head and session chair, EIPBN 2010.
- Reviewer Journal of Vacuum Science and Technology 2009 (reviewed 4 papers).
- Committee member, section head and session chair, EIPBN 2009 (invited speakers for Metrology session).
- Technical reviewer: EIPBN 2007–09 (reviewed more than 60 papers)
- Membership: IEEE, IEE, SPIE, WIE, Golden Key International Honor Society, Sigma Xi and NZFGW

CIVIC ACTIVITIES

- Member of the Board of Judicial Affairs, Stanford University (2009 - 2010)
- Member of the Judicial Panel Pool, Stanford University (2009 - 2010)
- Member of Women in Engineering (WIE) and Women in Science and Engineering (WISE),
- Stanford University. Actively participated in a mentoring program, Little Sister/Big Sister, by guiding two to three incoming female graduate students every year (2008 – currently).
- Committee member and vice-chair of the student branch of IEEE, University of Canterbury and University of Idaho (2002 – 2006)
- Committee member of Women in Engineering (University of Canterbury and University of Idaho), initiating school visits and science projects to promote engineering and science amongst high school girls.
- Volunteer Sir Edmund Hillary Trust (2000-currently).

PATENTS

- "Rapid Verification of Design Specification in Fabricated ICs", patent granted, Stanford Docket S07-290, patent application number: 20090297018.
- "Computational Scanning Electron Microscopy for 3D measurements", patent pending, Stanford Docket S08-195.

INVITED TALKS

- 11th Nov. 09: "Algorithmic Reconstruction in XRDM", Applied Materials (**Invited**)
- 8th May 2009: "X-ray Diffraction Microscopy", Applied Materials (**Invited**)
- 30th Jan. 2009: "Iterative phase recovery for IC inspection", UCLA (**Invited**)
- 18th September 2007: KLA Tencor, Computational SEM (**Invited**)

PUBLICATIONS

1. **Journal** – Leili Baghaei Rad, Bing Dai, Piero Pianetta, Fabian Pease, "Non-Destructive Detection of Deviation in Integrated Circuits", accepted for publication in Journal of Vacuum Science and Technology (Issue Nov/Dec 2010).
2. **Journal** – Leili Baghaei, Piero Pianetta, Fabian Pease, "Non-Destructive Reconstruction of Integrated Circuits", accepted for publication in American Institute of Physics Journal (Issue December 2010).
3. **Conference** - Leili Baghaei Rad, Bing Dai, Piero Pianetta, Fabian Pease, "Algorithmic Reconstruction Methods in Diffraction Microscopy using a Priori Information", EIPBN 2010, Anchorage, June 2010.
4. **Conference** - Ronnachai Jaroensri, Kanokwan Kulalert, Leili Baghaei Rad, Bing Dai, R. Fabian Pease, "Scaled-Up Optical Simulation of X-Ray Diffraction Microscopy" , EIPBN 2010, Anchorage, June 2010.
5. **Poster** - Leili Baghaei Rad, Piero Pianetta, Fabian Pease, "Algorithmic Reconstruction Methods in Diffraction Microscopy", XRDM 2010.
6. **Journal** - L. Baghaei Rad, P. Pianetta, Jianwei Miao and R. F. Pease, "Iterative Phase Recovery Using Wavelet Domain Constraints", Journal of Vacuum Science and Technology (Issue Nov/Dec 2009).
7. **Conference** - L. Baghaei Rad, P. Pianetta, Jianwei Miao and R. F. Pease, "Iterative Phase Recovery Using Wavelet Domain Constraints", EIPBN 2009, Marco Island, Florida, USA (May 26-29, 2009).
8. **Poster** - Bing Dai, Leili Baghaei Rad, Piero Pianetta, R. Fabian W. Pease, "Non-iterative Reconstruction for Buried Deviant Structure Detection in IC's using Coherent Hard X-ray Diffraction", EIPBN 2009, Marco Island, Florida, USA (May 26-29, 2009).
9. **Poster** - Leili Baghaei, Ali Rad, Bing Dai ,Fabian Pease , Piero Pianetta and John Miao, "Phase Recovery Using Wavelet Domain Constraints in X-ray Diffraction Microscopy", 2009 SSRL/LCLS User meeting, Stanford, October 18th 2009
10. **Poster** - Leili Baghaei, Fabian Pease , Piero Pianetta and John Miao, "Phase Recovery Using Wavelet Domain Constraints in", Gordon Center for Subsurface Sensing and Imaging Systems (Gordon-CenSSIS) Research and Industry Collaboration Conference October 27, 2009
11. **Journal** - L. Baghaei Rad, I. Downes, B. Dai, J. Ye, P. Pianetta, R. F. Pease, "X-ray diffraction microscopy: reconstruction with partial magnitude and spatial a priori information", Journal of Vacuum Science and Technology (Issue Nov/Dec 2008).
12. **Conference** - L. Baghaei Rad, I. Downes, B. Dai, J. Ye, P. Pianetta, R. F. Pease, "X-ray diffraction microscopy: reconstruction with partial magnitude and spatial a priori information", EIPBN 2008, Portland, Oregon, USA (May 27 – 30, 2008) .
13. **Journal** - L. Baghaei Rad, J. Ye, I. Downes, R. F. Pease, "Economic approximate models for back scattered electrons", Journal of Vacuum Science and Technology (Issue Nov/Dec 2007).
14. **Conference** - L. Baghaei Rad, J. Ye, I. Downes, R. F. Pease, "Computational, 3-D, Nanometer Scale Metrology", Proceedings of EIPBN 2007, Denver, Colorado, USA (May 29 - June 1).

15. **Conference** - L. Baghaei Rad, H. Feng, J. Ye, R. F. Pease, "Computational Scanning Microscopy", Proceedings of Frontiers of Characterization and Metrology for Nanoelectronics, Gaithersburg, MD, USA (March 27 – 29 2007)
16. **Conference** - I.G. Downes, L. Baghaei Rad, H.K. Aghajan, "Development of a mote for wireless image sensors", COGnitive Systems with Interactive Sensors Conference, Paris, France (15-17 Mar. 2006)
17. **Conference** - L. Baghaei Rad, R.B. Wells, I.G. Downes, M.J. Anderson, "Closely Spaced Hydrophones for underwater Acoustic Communication", Proceedings of the 12th Annual Symposium of the IEEE/CVT, Enschede, The Netherlands (3 Nov. 2005)
18. **Conference** - L. Baghaei Rad, L. Garth, I.R. Scott, "An Arbitary Modulation Format 'BBIQEE' for Direct Conversion Receivers", Proceedings of the Fourth Generation Mobile Forum Conference, San Diego, USA (7-9 Jul. 2005)

INTERESTS

- Engineering applications of convex optimization
- Early stage venture formation
- Hiking, Skiing and other outdoor activities

TEACHING EXPERIENCE

- EE116 – Semiconductor Device Physics (2008)
- ECE 200 – Digital Electronics Lab (2006)

REFERENCES

- Roger Fabian Pease, Professor of Electrical Engineering, Stanford University
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  (650) 723-0959, pease@stanford.edu
- Piero Pianetta, Professor of Electrical Engineering, Stanford University
  SLAC Bldg. 137, Rm. 313, Stanford University, Stanford, CA
  (650)926-3484, Pianetta@stanford.edu
- Jun Ye, President of Brion Technologies (an ASML company)
  CISX 315, MC 4075, 330 Serra Mall, Stanford University, Stanford, CA
- John Miao, Professor of Physics & Astronomy, UCLA
  Department of Physics & Astronomy, University of California, Los Angeles, CA 90095-1547
  (310) 206-2645, miao@physics.ucla.edu