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Anthony Wang

Skills Summary

- Proven skills in materials science R&D in academia and industry
- Hands-on experience in clean room and fabrication of thin-film devices
- Knowledgeable with electronic devices design, analysis, and fabrication methods
- Hard-working, creative, detailed, organized and very motivated to learn more

Work Experience

Since 10/2017 **Master thesis**, *Institut for Materials Sciences & Technologies*, TU Berlin, Germany.
- Additive manufacturing of bioactive composites from photocurable preceramic polymers with nanosized fillers

2016 – 2017 **Master project**, *I. Physics Institute, Experimental Physics*, RWTH Aachen, Germany.
- EBSD and electronic characterization of chalcogenide materials for novel devices

2015 – 2017 **Scientific Assistant**, *Fraunhofer Institute for Laser Technology*, Aachen, Germany.
- Testing and development of laser-based mass automobile manufacturing equipment
- Conducting metal joining and welding research with various laser-based systems
- Constructed a laser welding demonstration system for a conference in Munich

2013 – 2015 **Co-founder**, *evergrow (currently in start-up phase)*, Waterloo, Canada.
- Developed a novel fertilizer that addresses major shortfalls with existing products
- Identified industrial market sector and need for a multi-functional fertilizer
- Created prototype iterations that address customer and functional requirements

05 – 08/2014 **Research Intern**, *Fraunhofer Institute for Laser Technology*, Aachen, Germany.
- Researched & characterized laser parameter effects on joining of thin-film metals
- Conducted rapid prototyping, iteration and design of experimental setups
- Results were presented at an international conference (LAMP 2015, Japan)

01 – 04/2014 **Technical Advisor**, *Blake, Cassels & Graydon LLP*, Toronto, Canada.
- Drafted patent applications, response to Office Actions and patentability reports
- Conducted preliminary FTO research and assisted in product innovation processes
- Managed multiple client projects and requests simultaneously

01 – 04/2013 **Research Assistant**, *National Taiwan University*, Taipei, Taiwan.
- Designed and fabricated a novel temperature sensor at sub-micron resolution
- Conducted CAD, simulation and fabrication of probe prototypes and equipment
- Results were presented at an international conference (ISOT 2013, Korea)

2012 – 2013 **Undergraduate Research Assistant**, *University of Waterloo*, Canada.
- R&D of functionalized cellulose as carriers for medicinal materials
- Studied drug-cellulose binding/release interactions using instruments such as ITC

09 – 12/2012 **Software Quality Assurance Co-op**, *Fixmo Inc.*, Toronto, Canada.
- Proposed and implemented a testing workflow, increasing performance by 30%
- Discovered and reported critical issues encountered in testing to C-level executives

01 – 04/2012 **Formulations Engineer**, *University of British Columbia*, Vancouver, Canada.
- Assisted in R&D of novel lipid nanoparticles for delivery of therapeutic payloads
- Testing of different formulations and prototype manufacturing equipment

01 – 04/2011 **Research Assistant**, *Bayer MaterialScience AG*, Leverkusen, Germany.
- R&D of carbon nanotube-glass fibre composites with numerous applications
- Designed and conducted experiments using TGA, DSC, XPS, SEM, particle sizing and mechanical testing

Education

Since 10/2015 **Materials Science M.Sc.**, *RWTH Aachen University*, Germany.
- Specializations: Nanotechnology and Electronic materials; Current average: *1,40*

2010 – 2015 **Nanotechnology Engineering BASc.**, *University of Waterloo*, Canada.
- Graduation with Distinction; Graduation average: *1,6* (*87.84%*)
- Dean's Graduation Honours List; David Johnston International Experience Award

05 – 08/2014 **UROP International Student**, *RWTH Aachen University*, Aachen, Germany.
- UROP International Alumni Award; UROP International Scholarship

2005 – 2010 **Dogwood Diploma**, *Sentinel Secondary School*, West Vancouver, Canada, 4.0 GPA.

Scholarships & Awards

2017 Scholarship from Cologne Higher-education and Endowment Foundation, Germany
2017 Scholarship for Particularly Involved International Students, DAAD
2017 Science Assistant Certificate, RWTH Aachen University
2016 e-fellows.net Scholarship, e-fellows.net
2015 UROP International Alumni Award, RWTH Aachen University
2014 & 2015 Dean's Graduation Honours List, University of Waterloo
2013 – 2015 Sandford Fleming Foundation Award, University of Waterloo
2014 Engineer of the Future Trust (for evergrow), University of Waterloo
2014 David Johnston International Experience Award, University of Waterloo
2014 UROP International Scholarship, RWTH Aachen University
2012 – 2014 President's Research Award, University of Waterloo
2010 President's Scholarship of Distinction, University of Waterloo
2010 Paul B. Spafford Scholarship, University of Waterloo
2010 David McClenahan Scholarship, Sentinel Secondary, West Vancouver
2010 Gold Medal for Academic Distinction, Sentinel Secondary, West Vancouver

Activities & Interests

Involvement BeBuddy program at RWTH; FEDS employee (student union of UW); International Peer Mentor; UW German Society; UW International and Canadian Student Network.

Languages Fluent in Mandarin Chinese, English and German (TestDaF 5/5/4/4).

Interests Travelling, Hobby-DJ, Badminton, Ultimate Frisbee, Skiing, Solving Rubik's cubes.

Conferences attended

2017 Google Top Contributor Summit, Dublin, Ireland
2016 & 2017 Google Local Guides Summit, San Francisco & Mountain View, USA
2017 LASER 2017 World of Photonics Congress & Trade Fair, Munich, Germany

2017 DESY Research Course “Nanoscience at modern X-ray sources”, Hamburg, Germany
2016 Fraunhofer HiWi-Days at the Fraunhofer Society, Berlin, Germany
2016 atec2016 (Aachen Technology and Entrepreneurship Conference), Aachen, Germany
2015 atec2015 (Aachen Technology and Entrepreneurship Conference), Aachen, Germany
2014 Velocity Start-up pitch nights (series), Waterloo, Canada
2013 BrainSTEM Festival, Perimeter Institute, Waterloo, Canada
2013 Design Our Tomorrow 2013 (DOT 2013), Toronto, Canada
2012 BlackBerry 10 Jam developer conference, Kitchener, Canada
2012 UBC Life Sciences Exhibition & Poster Session, Vancouver, Canada

Publications

Henning Hollermann, Oana Cojocaru-Mirédin, Antonio Mio, Anthony Wang, and Matthias Wuttig. Local chemical and structural information of chalcogenide superlattices by correlative microscopy. In review.

Simon W. Britten, Anthony Yu-Tung Wang, Alexander Olowinsky, and Arnold Gillner. Measurement of the vapor plume velocity in laser impulse metal bonding with temporal power modulation. In *LAMP 2015—The 7th International Congress on Laser Advanced Materials Processing*, 2015.

Anthony Yu-Tung Wang, Cheng-Chun Huang, Yao-Chuan Tsai, Ming-Dao Wu, Dao Liang, Po-Jen Shih, and Wen-Pin Shih. *Thermal Manipulation Utilizing Microcantilever Probe in Scanning Electron Microscopy*, volume 306 of *Lecture Notes in Electrical Engineering (LNEE), Progress in Optomechatronic Technologies*, chapter 18, pages 169–180. Springer International Publishing Switzerland, 2014.

Online researcher profiles

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