

Contact

www.linkedin.com/in/mehrdadarjmand (LinkedIn)

Top Skills

Matlab
Molecular Dynamics
Phase field modeling

Languages

English (Full Professional)
Spanish (Elementary)
Persian (Native or Bilingual)
French (Professional Working)

Certifications

Entrepreneurship

Honors-Awards

Travel Award

Publications

First-principles Studies on the Molecular Beam Epitaxy Growth of GaAs_{1-x}Bix

Heteroepitaxial Growth Of Strained Thin Film In Sub-micron Patterned Substrates: An Elastoplastic Phase Field Model

Control of surface induced phase segregation in III-V semiconductor heterostructures

Effects of confinements on morphology of In_xGa_{1-x}As thin film grown on sub-micron patterned GaAs substrate: Elastoplastic phase field model

Modeling the stiffness of polymer/layered silicate nanocomposites: More accurate predictions with consideration of exfoliation ratio as a function of filler content

Mehrdad Arjmand

NovoMoto
Greater Chicago Area

Summary

I am working at a for-profit social enterprise called NovoMoto. NovoMoto provides clean electricity for off-grid rural communities in sub-Saharan Africa with stand-alone solar-powered systems that are cheaper, more efficient, and cleaner than the kerosene and diesel currently being used in these communities. Here is a summary of my accomplishments to date:

- Grew company from an idea to a 25 staff organization
- Attracting +\$1m in awards, grants, and investments for NovoMoto
- Organizing the logistics and supply chain channels
- Spearheaded financial projections for NovoMoto's growth in the Democratic Republic of Congo
- Supervising and training interns
- Supervised the development of NovoMoto's marketing material
- Represented NovoMoto in accelerator programs, business plan competitions, conferences, and entrepreneurial events

Also, I am a proficient engineer with significant experience in mathematical modeling of multiphysics phenomena. I received my Ph.D. in Engineering Mechanics at UW-Madison and have over five years of research experience in NSF-sponsored Materials Research Science and Engineering Center. My Ph.D. research focuses were on mathematical modeling of semiconductor thin films and nanowires. I am interested in:

- Semiconductor: Research and Development, Design and Simulation, Process.Engineering
- Renewable energy: Research and Development, Design and Simulation
- Software Engineering: Software development
- Consulting Engineer: Analyst, Communicate with customers
- Financial institutions: Quantitative Associate, Mathematical modeling

Experience

NovoMoto

Co-Founder/CEO

November 2015 - Present (6 years 6 months)

Chicago, Illinois, United States

NovoMoto provides clean electricity for off-grid rural communities in sub-Saharan Africa. NovoMoto's stand-alone solar-powered systems are cheaper, more efficient, and cleaner than the kerosene and diesel currently used in these communities.

University of Wisconsin-Madison

Graduate Research Assistant

September 2011 - May 2017 (5 years 9 months)

Madison, Wisconsin Area

- Developed a thermodynamics and kinetics model using COMSOL to study advanced compound semiconductor materials with applications in solar cell, laser and sensor devices.
- Collaborated with scientists and engineers in an Interdisciplinary Research Group at MRSEC; the group employs growth (CVD, MBE) and characterization (TEM, SEM, AFM, XRD) techniques for advanced semiconductor materials.
- Collaborated with scientists and engineers in Computational Materials Group (CMG) – exposure to broad range of applications of computational/numerical analysis in materials science and mechanics.
- Developed code to solve high order non-linear partial differential equations to model non-equilibrium growth conditions.
- Responsible for software installation and testing on Linux-based clusters of CMG.
- Member of MRSEC executive committee, which plays leadership and advisory role in the center.

Seisco

Consulting Engineer

July 2010 - July 2011 (1 year 1 month)

Tehran, Iran

- Executed HVAC System design, including heating and cooling systems, piping plans, potable water system, sanitary sewer system, and gas network of industrial environments.

- Developed and delivered gas and oil piping plans and designed supporting pressure vessels and drums in industrial plants.
- Market research and feasibility study of application of nanotechnology in everyday life such as wearable products.

Education

University of Wisconsin-Madison

Doctor of Philosophy (PhD), Engineering Mechanics · (2013 - 2016)

University of Wisconsin-Madison

Master's degree, Engineering Mechanics · (2011 - 2013)

K. N. Toosi University of Technology

Master's degree, Mechanical Engineering · (2008 - 2010)

International University of Imam Khomeini

Bachelor's degree, Mechanical Engineering · (2003 - 2008)