## ALEXANDER EN-TZU SHIH

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#### **EDUCATION**

### Massachusetts Institute of Technology, Cambridge, MA

June 2010

Sloan School of Management and School of Engineering

Candidate for Master of Science in Engineering and Management, System Design and Management Fellow

#### Cornell University, Ithaca, NY

May 2005

Bachelor of Science in Mechanical Engineering, concentration in Aerospace

### WORK EXPERIENCE

# Global Cycle Solutions (www.globalcyclesolutions.com), Arusha, Tanzania

2009-Present

- Helped found start-up company developing and selling bicycle peripherals for farmers and villagers in developing countries.
- Successfully guided business decisions and market positioning with demand and competition analysis.
- Designed and maintained website layout, IT, and social media relations, attracting \$50,000 in contributions from investors and daily sales and information inquiries.
- Managed sales and customer relations, secured early product orders and partnerships with distributors, and supported ground operations in Tanzania.
- Winner of MIT \$100K Competition Development Track and Audience Choice Award (total winnings: \$33,500, current Series A investment: \$120,000) and 2<sup>nd</sup> place out of 100+ projects at Nane (annual agricultural showcase in Tanzania).

## Celedu (nextlab.mit.edu/spring2009/celedu), Media Lab, Cambridge, MA

### Project Manager

2009-Present

- Managed prototype development of mobile literacy/educational tool, culminating in successful demonstrations that attracted key organizations for partnerships, such as Nokia and Development Alternatives.
- Executed pilot study in India working with women in rural villages, demonstrating dramatic improvement in literacy in shorter time periods and quick adaptability to mobile learning due to our intuitive design.
- Coordinated complex relationships between four critical stakeholders and their respective incentives through structured conference calls and individual follow-ups to lock in support for funding, logistics, subject expertise, and research objectives.

# Raytheon Company, Integrated Defense Systems, Woburn, MA Systems Engineer

2005-09

- Developed target discrimination Advanced Algorithms (AA) version control system (Six Sigma certification project), estimated \$152.270 annual cost savings.
- Co-led AA systems data collection analysis and flight test missions in the Terminal High Altitude Area Defense (THAAD) radar from 2006-08, contributing to 100% fulfillment of mission objectives.
- Coordinated tasks and testing procedures for AA development, verification, and system integration, collaborating with software and systems engineers to diagnose and resolve issues in order to deploy reliable solutions for the U.S. Army.
- Mentored and consulted for the AA library and architecture, developing a sustainable knowledge transfer process which tripled the AA team size.

### SERVICE EXPERIENCE

## American Chinese Christian Educational and Social Services (ACCESS), Boston, MA

New Initiative Developer, Tutor

2006-Present

Led summer program teaching team for Boston Chinatown elementary school students; 2<sup>nd</sup> year attendance doubled previous year's attendance.

# Social Concerns Ministry (SCM), Chinese Bible Church of Greater Boston, Lexington, MA *Homeless Ministry Coordinator*

2005–09

Coordinated and managed groups of 10+ people for monthly projects at inner-city homeless shelters.

### Engineers without Borders-Boston Chapter, Boston, MA

Organizer, Tutor

2007-08

Pioneered an engineering and science after-school program for 40 children between ages 5 to 11.

### **SKILLS AND INTERESTS**

Member of MIT Energy Club and Innovation Club • Consultant to Institute-Wide Planning Task Force • Six Sigma Specialist • U.S. Government Secret Clearance • Computer programming (Matlab, exposure to Java, C++, HTML) • MS Office tools • proficient in Mandarin Chinese and basic knowledge of Spanish • MIT/Cornell Bhangra Teams (instructor, choreographer) • long-distance running & charity races

### **PUBLICATIONS**

Z.C. Feng, A. Shih and W. Miller, "Self-Excited Oscillations of Structures by Particle Emission," *Nonlinear Dynamics*, No. 32, March 2003, pp. 15-32.