

# Jaeyoung Cho

Research Assistant - University of Houston

Houston, TX

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Versatile Operations Research practitioner with 12 years of enduring accomplishments in systems capability requirements development and analysis, international relations, and strategic engagement. Passionate about helping executive decision makers arrive at informed decisions on complex issues, working independently or on teams. Skilled at cross-cultural communications and interagency coordination to bring about consensus on difficult issues. Multilingual (Korean, English). Seeking opportunity as Operations Research Analyst.

Willing to relocate: Anywhere

Authorized to work in the US for any employer

## WORK EXPERIENCE

### Research Assistant

University of Houston - Houston, TX - August 2013 to Present

#### SELECT ACCOMPLISHMENTS

- Developed optimization models for UAV-aided healthcare delivery service, UAV-aided security management, maritime inventory control and vessel routing, underwater sonar placement and so forth. Specifically, maritime inventory routing model considered special properties of natural gas such as boil-off gas generation and dust storm disruption as uncertainties.
- Formulated the problems either to a two-stage / multi-stage stochastic optimization models or parametric optimization models, and solved using Monte Carlo Optimization techniques, Probing-based pre-processing techniques, Data analysis, and Solution Pool algorithm and many other operations research techniques.

### Military Officer (Major, O-4)

Republic of Korean Army - Seoul, Korea - March 2000 to August 2012

#### SELECT ACCOMPLISHMENTS

- Independently designed and implemented ROK Joint Chief of Staffs Virtual Command Post System (VCPS) that enabled the VCPS to synchronize, update, and highlight current operational status, making it the most productive element of the theater operations synchronization Tools.
- Lead airspace coordinator for joint fire operations of Ground Component Command. Resolved potential airspace conflicts in the operations plan.
- Planned, coordinated, and led successful execution of Head of States' and Chief of Defenses' visit to UN Interim Forces in Lebanon (UNIFIL) in South Lebanon. These successful visits resulted in Troop Contributing Countries' renewed support for the UNIFIL.

## EDUCATION

### PhD in Industrial Engineering

University of Houston - Houston, TX

2013 to 2016

**MS in International Relations**

Troy University - Troy, AL

2008 to 2013

**ME in Industrial Engineering**

Korea University - Seoul, Korea

2004 to 2006

**BA in International Relations, Military Science**

Korea Military Academy - Seoul, Korea

1996 to 2000

**AWARDS**

**Excellent Dissertation Award (Republic of Korea Army HQ)**

2006

**Special Force Qualification Course Excellence Award (Special Warfare Training Group)**

2006

**Excellent Service Awards**

- 1) Minister of Defense (2007)
- 2) Chairman of Joint Chiefs of Staff (2011)
- 3) Ground Component Commander (2008)

**Army Commemoration Medal (United Nations Command / United States Forces in Korea)**

2012

**United Nations Interim Force in Lebanon Mission Medal (UN Secretary General)**

2011

**Iraq Deployment Service Medal (Minister of Defense)**

2007

**GROUPS**

**Institute for Operations Research & Management Science**

2013 to Present

**Institute of Industrial Engineers**

2013 to Present

**PUBLICATIONS**

**LNG production inventory planning and delivery routing under dust storm (submitted to IEEE Transactions on Intelligent Transportation Systems)**

2015

**Safety and security management with Unmanned Aerial Vehicle(UAV) in oil and gas industry (Procedia Manufacturing)**

2015

**Liquefied natural gas ship route planning: a risk analysis approach (Procedia Manufacturing)**

2015

**Use of Unmanned Aerial Vehicle (UAV) for risk monitoring in oil and gas industry (IIE Annual Conference)**

2015

**Use of Unmanned Aerial Vehicle (UAV) to aid healthcare delivery service (IIE Annual Conference)**

**Case studies on maritime incidents: a review (IIE Annual Conference)**

2015

**Liquefied natural gas ship route planning model considering market trend change (Transactions on maritime science journal)**

2014

**Literature survey on underwater threat detection (Transactions on maritime science journal)**

2015

**Liquefied natural gas inventory routing problem under weather disruptions: a case study of dust storm in Persian Gulf (Texas Hurricane Center (THC) Conference)**

2014

**Under-water sonar placement (IIE Annual Conference)**

2014

**The impact of Information-centric force improvement on deterrence of invasion on the Korean peninsula: a game theoretic analysis (Military Operations Research Journal-Korea)**

2005

**A two-stage stochastic approach to the artillery fire sequencing problem (Military Operations Research Journal-Korea)**

2005

**An interpolation algorithm considering diagonal factors for enhancing the quality of digital images (Korean Management Information System)**

2004

#### ADDITIONAL INFORMATION

#### SKILLS

Operations Research (10+ years), Decision Support/Business Intelligence (10+ years), Requirements Development/Analysis (10+ years), Strategic Planning/Engagement (5 years), Data Farming/Data Mining (10+ years), Special Warfare (3 years), Airspace Management / UAV operations (3 years), GAMS, CPLEX, C++, R/SAS, MS office, SIMIO, LATEX (3 years)

## LINKS

<http://linkedin.com/in/jaeyoungcho>