

# IRENE ALISJAHBANA

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## EDUCATION

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- PhD in Structural Engineering** 01/2019-Present  
Civil and Environmental Engineering Department, Stanford University, USA  
*Advisor: Professor Anne S. Kiremidjian*
- Master of Science in Structural Engineering** 09/2017-01/2019  
Civil and Environmental Engineering Department, Stanford University, USA
- Bachelor of Engineering in Civil Engineering** 09/2013-08/2017  
Civil Engineering Department, Universitas Indonesia, Depok, Indonesia

## EXPERIENCE

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- Graduate Research Assistant** 04/2018-Present  
*Department of Civil Engineering, Stanford University, USA*
- Worked on the development of urban resilience models with electrical micro-grid design
  - Performed earthquake simulations to obtain building damage distribution for the city of San Carlos
  - Worked on spatial data using GIS
- Structural Engineering Intern, Arup, Los Angeles, CA, USA** 06/2018-08/2018
- Assisted in the design of 3 new projects, including LA's Airport Metro Connector
  - Used various software to analyze slabs and check for reinforcement
  - Performed checks on retaining walls
  - Created, analyzed and designed steel structures with performance-based seismic criteria
  - Helped create markups and submittals
- Undergraduate Research Assistant** 09/2016-07/2017  
*Department of Civil Engineering, Universitas Indonesia, Indonesia*
- Used finite element to study the shear forces in various quadrilateral and triangular discrete elements
  - Collaborated with co-writers, and faculty to produce publication
  - Managed data analysis and final manuscript preparation

## DESIGN AWARDS

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- Mars City Design Competition 2018, USA** 10/2018
- Researched and presented a plan for the deployment of a human colonization on Mars
  - Created sketches, engineering drawing and helped create the final submittal for the competition
  - Collaborated with people from other disciplines
  - Awarded 1<sup>st</sup> Place in Architecture Category from over 50 entries
- NTU Bridge Design Competition 2017, Singapore** 03/2017
- Collaborated in a team of 3 to design and build a bridge made of balsa wood that was tested by loading
  - Innovated on using nylon string to further improve the strength of the bridge
  - Presented in front of faculty in NTU, Singapore
  - Placed 2<sup>nd</sup> out of 33 international teams
- Wiratman Bridge Challenge 2016, Indonesia** 11/2016
- Prepared a preliminary design report for a proposed bridge, including analyzing real condition of the proposed bridge, proposing an innovative design, structural analysis, site plan, cost estimation and construction process
  - Coordinated with local residents and government officials on the proposed bridge
  - Surveyed the proposed bridge location and collected data on the soil and river
  - Presented a technical presentation to leading consultants and professors of civil engineering in Indonesia
  - Placed 2<sup>nd</sup> out of 105 national teams

## LANGUAGE AND TECHNICAL SKILLS

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Languages: Indonesian (Native), English (Fluent), and Korean (Conversational)  
Programming languages and mathematical packages: MATLAB, Mathematica, R, Python, C++  
Computer aided design/engineering: AutoCAD, SAP2000, ETABS, Revit, Rhino, ArcGIS