

Bianchi Dy

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EDUCATION

Nanyang Technological University (NTU), Singapore

Environmental Engineering, Bachelor of Engineering

AUG 2012 – JUN 2016

- Graduated with Second Upper Class Honors
- Studies fully sponsored by the Singaporean Ministry of Foreign Affairs' Singapore Scholarship, awarded to top students from the ASEAN region

RELEVANT RESEARCH & WORK EXPERIENCE

Improving Design Decision-Making through Data Visualisation

Research Assistant, SUTD-MIT International Design Centre

OCT 2018 – PRESENT

- Studied the role of data visualization in decision making for architecture and design fields using empirical methods to produce guidelines and a visualization recommender system for architectural design big data under the supervision of Sam Joyce and Ate Poorthuis
- Collaborated with urban planners to understand feedback data through natural language processing and spatial analysis, in order to recommend new features and improvements for a digital planning support tool

Computational Support for Shape Grammars for Urban and Architectural Design

Research Assistant, Department of Architecture, School of Design and Environment, National University of Singapore

NOV 2016 – JULY 2018

- Created the API and Grasshopper plug-in for the Sortal Shape Grammar Interpreter (Sortal SGI), a Python-based framework for creating and implementing shape grammars in computational modelling environments such as Rhino under the supervision of Rudi Stouffs
- Extended the Sortal SGI's API to link with the shape grammar tool of Assoc. Prof. Andrew Li (Architecture Department, Kyoto Institute of Technology), for classroom use

TEACHING

Teaching assistant, 02.526 Interactive Data Visualization

FEB – MAR 2019, 2020

SELECTED PUBLICATIONS

- S. C. Joyce, B. Dy, G. Guo, N. Ibrahim, A. Poorthuis, "Seeing Numbers: Considering the Effect of Presentation of Engineering Data in Design" in IASS Annual Symposium 2019 – Structural Membranes 2019 Form and Force. Barcelona, Spain, 2019.
- B. Dy and R. Stouffs, "Combining Geometries and Descriptions A shape grammar plug-in for Grasshopper" in eCAADe - Computing for a Better Tomorrow. Lodz University of Technology, Lodz, Poland, 2018, Volume: 2, pp. 499-598.

SELECTED SKILLS

- **Programming languages:** JavaScript, HTML, CSS (+2 years); Python (+4 years)
- **Data visualization and graphics:** D3, Adobe InDesign, Adobe Photoshop
- **Web development:** Vue, Svelte
- **Languages:** fluent in Filipino English, German; basic French

REFEREES

Sam Joyce, Ph.D

Assistant Professor, Architecture and Sustainable Design
Singapore University of Technology and Design
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Ate Poorthuis, Ph.D

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Rudi Stouffs, Ph.D

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