Ng Wykeith

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#### **Personal Statement**

Life is a learning journey, I strive to be forward looking connecting the 'dots' with each step forward.

#### Personal Interests

Urbanism – Urbanization in Asia, Urban redevelopment, Transit Oriented Developments TODs, Future-ready Infrastructure, Knowledge Economies

Architecture - detailing (façade designs), data driven design

Sustainability - renewable, passive energy designs, Urban / Building Integrated Photovoltaic BIPV systems, Eco-developments

Computing – Machine Learning , *Neural Networks* , *Algorithms*, *Geographical Information Systems GIS* , *Big Database scalability* 

Business – Product Branding, Positioning, market research, A/B testing

# **Academic Qualifications**

Master in Architecture, Graduated May 2009 **National University of Singapore** 

Bachelor of Arts in Architecture (Honours) Graduated 2006, National University of Singapore Honours Second Class Lower

Student Exchange Program (11 months), 2005, **University of Melbourne** 

## **Summary of Employment**

## Senior Associate – Design and Feasibility Studies (Ministry of Finance – Centre for Public Project Management)

Feb 2015 - Present (Full Time)

Responsibilities include

- Design review of agencies' DPC projects
- Provide feasibility study services

<ul><li>Research on LifeCycle Costing</li><li>Assist in the running of department seminars &amp; workshops</li></ul>				
1	Project Feasibility Study	New Intergrated Firestation and NPC	Architectural Concept Massing	
		Size: 8000 sqm	Cost: \$46 mil	
	Responsibilities - Gather user requirements - Propose various options for landtake optimization - Produce Concept massing and plans - Study various landscape replacement options and impact on project - Generate Schedule of Areas for costing			
2	Project Feasibility Study	New Divisional Police Headquaters	Architectural Concept Massing	
		Size: 54,000 sqm	Cost: \$230 mil	
3	Responsibilities  - Gather user requirements  - Consultation with Authorities (URA/LTA/PUB)  - Study security and vehicular clearance with inputs from stakeholders  - Produce concept massing and plans  - Generate Schedule of Areas for costing  Project Feasibility Study  New Animal  Architectural Concept			
		Quarantine Station	Massing	
		Size:3200 sqm	Cost:\$7 mil	
	Responsibilities - Gather user requirements - Assist agency in URA's Site selection process - Produce conceptual massing options - Generate Schedule of Areas for costing			
4	Masterplanning Study	Next Generation Border Immigration Facilities	Strategic Masterplan Report	
		Site:68ha	Cost: \$1.2bil	
	Responsibilities - Interview project stakeholders and review user requirements - Propose future proofing / risk management scenarios			

- Coordination with external agency stakeholders (URA/HDB/LTA)

- Recommend various landtake options based on strengths and weaknesses

#### **Manager – Master Planning**

#### (Sports Singapore, Sports Facilities Group)

Sep 2013 – Jan 2015 (Full Time)

Responsibilities include

- Writing Approval Papers
- Crafting of Tender Contracts and Specifications
- GIS Feasibility Studies / Selection of Sites for Sports Facilities under Sports Facilities Master Plan

5	Project Concept Study	New Punggol Regional Sports Centre	Architectural Concept Proposal
		Size: 36500 sqm	Cost:\$200mil
	Responsibilities - Gather user requirements - Consult external Authorities/Stakeholders (URA/HDB/LTA) - Produce Concept massing for rendering of Perspective - Produce design brief for calling of MDT consultants		
6	Project Concept Study	A & A to Ang Mo Kio Swimming Complex	Architectural Concept Proposal
		Size: 6000 sqm	Cost:\$17mil
	Responsibilities - Consult external Authorities/Stakeholders (URA/HDB/LTA) - Design new typology for concept of wet playfield - Brief and Solicit feedback from Grassroots committees - Produce design brief for calling of MDT consultants		
7	Facilities planning	Sports Facilities Masterplan 2030	Masterplan
		Na	Cost: \$4.3bil
	Responsibilities - Analyze sports participation surveys / focus group discussions - Study catchment and reach of sports facilities (Tennis courts)		

#### **Architect - Town Planning**

#### (HDB, Research and Planning Group)

Oct 2011 – Sep 201 (Full Time)

Responsibilities include

- Town Coordinator handling public queries and coordination work with external agencies
- Planning for sufficient facilities to be provided for town under charge

- Recommend new facilities to meet gaps in Facilities provision

- Submission of planning approvals to ensure supply of land to meet

#### HDB's Building Program quantum

8		Yishun Integrated Bus Interchange	Government Land sales
		Size:123,000 sqm Site: 4.11ha	Na

#### Responsibilities

- Coordination with external authorities/stakeholders (URA/LTA/PUB/DSTA)
- Study various bus interchange configurations in order to optimize landtake
- Propose alternative configurations with various achievable plot ratios

	- Produce urban design guidelines for GLS tender documents		
9	Physical planning	HDB Punggol North Town plan	Masterplan
		Size:422ha 96,000 Dwellings	Na
Responsibilities - Coordination with external authorities/stakeholders (URA/LTA/PUB/NPAR - Propose massing configurations to meet required housing quantum projections are produce urban design guidelines for calling of MDT consultants			
10	Physical planning	HDB Tampines North Town plan	Masterplan
		Site: 240ha 25,000 Dwellings	Na
	Responsibilities - Coordination with external authorities/stakeholders (URA/LTA/PUB/NPARKS) - Propose massing configurations to meet required dwelling unit projections & GPR - Produce urban design guidelines for calling of MDT consultants		

# Architectural Executive (DP Architects Pte Ltd)

Jun 2009 - June 2011 (Full Time)

Responsibilities include

- Revit BIM Document Controller for Sportshub Development
- Component Lead for SSC Office Sportshub Development
- Project Coordinator for S'pore University of Technology & Design competition (won)
- Team Leader for BCA BIM skill competition (won)

11	Detailed Design Documentation	Singapore Sportshub Development	Architecture Detailed Design
		Site: 35 ha	Cost: \$1.33 bil
	Responsibilities - Building services coordination with multi-disciplinary team (M&E/C&S/Ldscape) - Detailed design of cubicle layout & floor plan for Sports Singapore office - Conduct facade design studies to optimize modularity and the efficient use of materials		
12	Concept Proposal	Singapore University of Technology and Design	Architectural Concept Competition
		Size: 100,600 sqm	Cost: \$229 mil
	Responsibilities - Coordination with overseas design Architect & Local MDT team - Ensure competition user-requirements are met in the design		

#### **Urban Designer**

(Surbana International Consultants, Surbana Urban Planning Group)

Aug 2006- May 2008 (Full Time)

- Produce competition printed panels

#### Responsibilities include

- Preparation of Tables and Figures for Planning Reports
- Drafting of landuse plans
- Urban Design Massing for City Downtowns

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13	Physical planning	Al Wakra / Al Khor Qatar	Masterplan	
		Al Wakra: 2483 sqkm Al Khor: 1552 sqkm	Na	
Responsibilities - Drafting of road/landuse infrastructure plans in GIS - Massing visualization of downtown building form - Preparation of urban design guidelines for report				
14	Concept Proposal	Kimdo Royal Hotel Complex	Architectural Concept Competition	
		Size: 51,500 sqm	Cost: \$55mil	
	Responsibilities - Building service coordination with multi-disciplinary team - Propose hotel room layout - Liaise with perspectivist to ensure design intent is preserved in rendering			

## **Research Analyst**

### (NUS, Dr Stephen Wittkopf)

Nov 2003- Jan 2004, Oct 2004 – Feb 2005 (Temp work)

- Research on Building Integrated Photovoltaic (BIPV) strategies for urban high rise housing
- Collected, collated and analyszed data from PV experiment
- Procured and set up equipment for research experiments
- Ran computational energy simulations for theoretical BIPV designs
- Managed 2 batches of polytechnic interns working with Revit and EON studio softwares
- Research on new techniques for daylight simulation & analysis using photon mapping