

# Looking at Transferable Skills for Engineers

by

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# What are transferable skills?

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- useful skills for a range of positions
- skills gathered through jobs or other life experiences
- very important to migrant who needs to find a job and may have to change careers

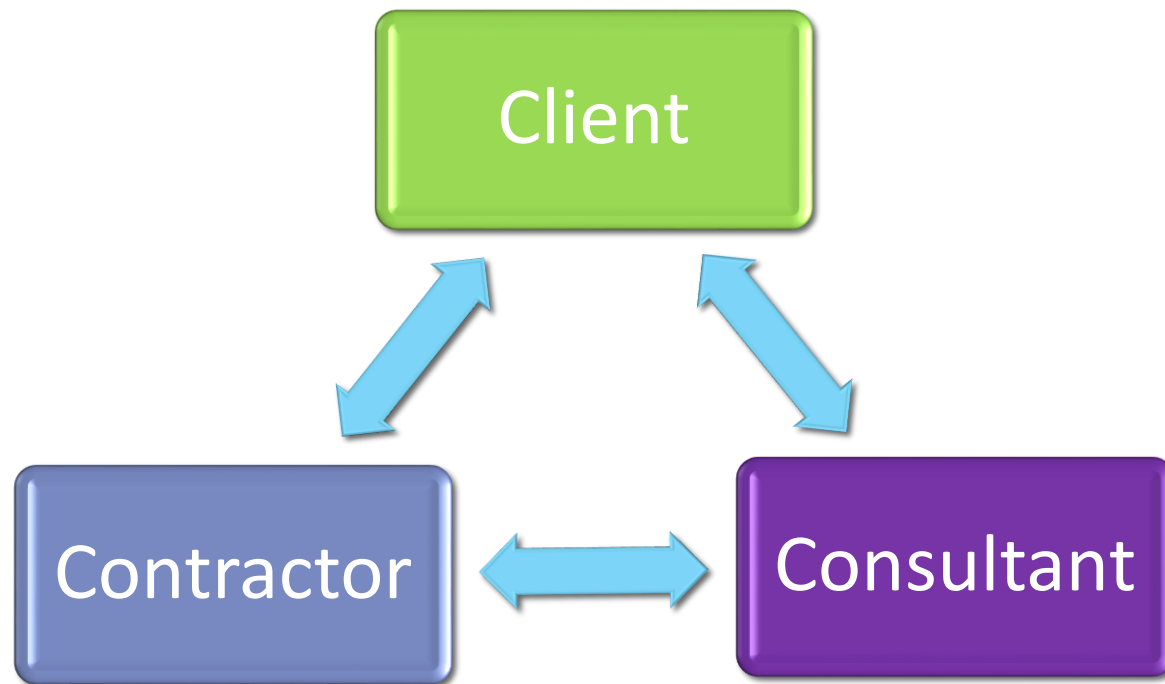
# Transferable skills can be used across employment areas

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- technical skills
- job specific skills
- general skills
- personal attributes

# Transferable skills can be used across employment areas

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# Client

- **Government agencies** (*NZTA, Housing NZ, Ministry of Environment*)
- **Territorial authorities** (*Auckland Council and other city councils, district councils, and CCOs such as Watercare, Auckland Council, Capacity Infrastructure Services*)
- **Private entities and developers**

**Asset management**

**Feasibility studies**

**Planning**

**Investigation and design**

**Project management**

**Contract management**

**Operation and maintenance**

**Regulatory services**

**Monitoring and surveillance**

**Quality assurance**

# Consultant

- **Multidisciplinary**  
(AECOM, AURECON, OPUS, Harrison Grierson, SKM, URS, MWH and more)
- **Specialists** (geotechnical, structural, mechanical, electrical, environmental, modelling, risk management, surveying, and so on)
- **Independent and sub-consultants**  
(geotechnical, structural, mechanical, electrical, environmental, modelling, risk management, surveying)

Asset management

Feasibility studies

Planning

Investigation and design

Project management

Contract management

Advisory

Monitoring and surveillance

Quality assurance

# Contractor

- **General contractors**  
*(Downer, Fulton Hogan, Fletcher, Higgins, Hawkins, HEB and more)*
- **Specialists and sub-contractors**  
*(geotechnical, structural, mechanical, electrical, environmental, surveying, painting, fabricators, etc.)*
- **Suppliers** *(concrete, pumps, mechanical and electrical equipment, etc.)*

**Construction**

**Design and build**

**Manufacturing**

**Facilities management**

**Project management**

**Contract management**

**Operation and maintenance**

**Site engineering**

# Most transferable skills can be used across practice fields

	Civil	Mechanical	Electrical	Chemical
Customer service and consultation skills	✓	✓	✓	✓
Communication and presentation skills	✓	✓	✓	✓
Project and budget management	✓	✓	✓	✓
Financial and contract management	✓	✓	✓	✓
Risk analysis and management	✓	✓	✓	✓
Time management and self motivation	✓	✓	✓	✓
Leadership and team management	✓	✓	✓	✓



# What type of engineer does these tasks?

- **Feasibility studies**
- **Consultation and consents**
- **Survey and data gathering**
- **Investigation and detailed design**
- **Tender documentation**
- **Contract documentation**
- **Health and safety**
- **Management**
- **Monitoring and audits**
- **Progress claims**
- **Variations assessment**
- **Budget and reports**
- **Contract administration**

# Case Study – Zaid Essa

Middle East	<ul style="list-style-type: none"><li>• road design and construction</li><li>• design and construction of water, wastewater and stormwater networks</li><li>• land development</li></ul>
New Zealand	<ul style="list-style-type: none"><li>• maintenance and construction works related to water, wastewater and stormwater networks</li><li>• procurement</li><li>• road investigation, design and Construction</li><li>• project delivery</li></ul>

# Case Study – Remi Cruz

Philippines	<ul style="list-style-type: none"><li>• hydraulic studies</li><li>• water treatment plant operation</li></ul>
Brunei	<ul style="list-style-type: none"><li>• water infrastructure</li><li>• housing development</li></ul>
New Zealand	<ul style="list-style-type: none"><li>• drainage maintenance</li><li>• water supply operation</li><li>• infiltration and inflow control</li><li>• water loss management</li><li>• sewer rehabilitation</li><li>• road infrastructure delivery</li><li>• roading investigation and design</li></ul>

# Points to consider

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- job titles held tell little about actual jobs
- understand the key skills that employers look for
- identify and market your transferable skills related to the job
- transferable skills will help you land a job or make a career change

# Questions?

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