



SKILLS MATRICES – INFO FOR COMPANIES

THIS INFORMATION IS DESIGNED TO HELP COMPANIES SELECTING A “STREAM” FOR SUMMER OF TECH INTERNSHIP PROJECTS.

PROJECTS ARE ATTACHED TO A “STREAM”, CODE, ENGINEERING, DESIGN OR BUSINESS ANALYSIS.

Each “Stream” has a Skills Matrix, where you outline what skills are required (or preferred) for your project. These Skills Matrices have been developed in consultation with industry and tertiary advisors. Candidates will list their skills, and say whether their knowledge is from Academic (studied it), Practical (practiced outside of university) or Working (paid to do it) experience. Candidates can also select some areas of “Interest”, which is an indication of skills they’re keen to develop through an internship (whether they have experience in the skill area or not).

Code Skills

Fundamentals

Object-oriented programming

AI

Computer Graphics

Network Programming

Distributed Programming

Web Development

Mobile Phone Development

Programming languages/frameworks

Java

C/C++

.NET

PHP

Python

Perl

Ruby / Ruby on Rails

Javascript / AJAX

SQL

CSS

HTML

XML

Action Script / Flash

COCOA

iPhone

Systems/database

Linux / Unix

Windows

Oracle

MySQL

PostgreSQL

SQL Server

MAC OSX

Engineering Skills

Mechatronics/product development	Civil/technical
Materials & Fabrication	CAD / Drafting
CAD	Geotechnical
CAM	Surveying
MATLAB	Roading
ECAD	Infrastructural Management
PolCAD	Contract Supervision
AutoCAD	Water / Waste / Environmental
Solidworks	Construction Management
PRO E	Process/manufacturing
Hydro-pneumatic Circuit Designing	Lean Manufacturing
Computer (software/hardware)	5S
Network Programming	Six Sigma
Distributed Programming	JIT
Embedded Systems	Quality Management
Communications Engineering	Process Design
Analogue Electronics	Plastics Moulding
Control System Engineering	Mould Design
Software Modeling	Project Management
Computer Architecture	
Mechanical	
Welding	
Turning	
Milling	
CNC Manufacturing	
Hand Tools	
Sheet Metal	
Actuators / Motors	
Pumps / Turbines	
Materials Properties	
Plastics Properties	
Heat Exchanger	
Electrical	
Electronics	
PCB Design	
Analogue Circuit Design	
Digital Circuit Design	
Micro-controller Programming	
RF System Design	
Motor Control	
Power Electronics	
Power Systems & Distribution	
PLC	
Environmental	
Sustainable Technologies	
Waste Management	
Clean Tech	

Design Skills	Business Analysis Skills
Digital media	Fundamentals
Video Crew	Business Process Mapping
Video Editing	Business Process Re-engineering
3D Modelling	Project Management
3D Texturing	IT systems knowledge
Rigging / TD	Feasibility
Animation	Relevance
Rendering	Data Collection
Motion Graphics / Compositing	Requirements Interviews
Rotoscoping	Technical Writing / Documentation
FX	Tools/methodologies
Concept Art / Matt	Visio Professional
Shake	Aris Software
Maya	iGrafx Software
After Effects	MS-Project
Web	PMBok
Photoshop	Prince2
Illustrator	MS Suite
CS (Creative Suite)	Axure
Interaction Design	Version Control
Flash	
HTML	
Javascript / Ajax	
Industrial	
CAD	
Modelling	
SolidWorks	