

# Curriculum Vitae - Julian A. Wise

Email: [julianadamwise@gmail.com](mailto:julianadamwise@gmail.com)

Addr : 19 Glyndon Avenue Brighton Melbourne  
VIC 3186, Australia



## Science Publications

### 'REACT-R and Unity Integration'

- Created a new method module for an "AI mind" (Cognitive Architecture, called "ACT-R") to integrate with a Robot Embodiment over a new "REACT-R module".
- Allows a robot 'drone' to autonomously perform missions.
- Accepted into **The 2016 World Congress in Computer Science, Computer Engineering, & Applied Computing**

## Work Experience - Industry Related

### Software Engineer (placement year)

#### - Neo-Matix

Apr - October  
2017

- Apply Convolutional Neural Networks to correctly classify information in Tensorflow, Keras & Theano.
- Build a model camera out of code in Python. Create transformation matrices to correct for camera distortions.
- Correctly unit tests code and validate that the models perform as expected.
- Graph results for the CEO of Neo-Matix. Apply Data Science to obtain visual analytics in Pygal & Matplotlib.



### Software Developer

#### - PredictiveHire AI

Jan - June  
2016

- Create an Information Retrieval System and automated for sales team & company executive .
  - Collects information in a still growing database on cycle.
  - Emails executives the key weekly company KPI measures.
- Build web-services to integrate with the company's core Micro-Service Architecture
- Build software with a 'MEAN' (Mongo, Express, Anagular.JS, Node.JS) stack.
- Developer operations - Setting up servers in AWS and Azure.
- Integration of company API into other languages for user authorisation and analytics display.



### Artificial Intelligence, Mining Informatics - CSIRO (Summer Scholar)

Nov - Feb  
2015- 2016

- Create an autonomous drone simulation with a cognitive processing system
- Build an interface for ACT-R software to communicate with Unity Game engine over UDP connection (previously never done)
- Create rule sets to allow the drone to independently complete mission objectives and communicate with its human controller.



### Data Mining and Analytics - Scholarship Research, RMIT

Dec-Jan  
2014-2015

#### Lead Researcher in Machine Learning & Data Mining Project.

- Produced a project document titled 'Analytics for Education', for RMIT's School of Chiropractic, with the objective of improving their educational outcome.



- Applied machine learning algorithms to student group data for the purpose of providing RMIT Chiropractic with predictive information on improving student grades in assignment work.
- Building basic Java programs to edit code and convert data format.
- Apply key performance indicators through Quantitative Analysis and Statistical Modelling.

## Data Analyst with RMIT Global, Urban and Social Studies

Apr-June  
2015

- Required to manage the information cycle, from a Virtual Reality Conference I volunteered in.
- Data was prepared, analysed and the information obtained was reported to people working in strategic management at university.

## Education

RMIT University

**Bachelor of Software Engineering**

High Distinction Average

2014-Present



## Programming Languages

### Programming Languages

Python	Deep Learning in Keras, Theano, Tensor flow, Computer Vision, Automated Data Collectors, Web-Development in Flask and Django, Machine Learning in Sci-Py, Numpy
Java	Data Science with Weka, chat Rooms Server with GUI's, I/O scripting. .
C	Built a LISP Compiler, Connect 4 Game
LISP	Reworked 'ACT-R' module to have a robot embodiment <b>-published paper</b>
Processing	Data Modelling, Visual Code, Apply Physics and Recursive Artwork. .
Java Android	Developed a 'Zen Quote from famous Masters' app
C#, ASP.net MVC	Built 4 tiered website with front, back end and MSSQL for database
Common Lisp, ACT-R, C#	Connected cognitive architecture to C# Unity Game Engine over UDP connection

## Extra-Curricular Activities

### Golden Key Honours Society

- Awarded recognition as a high achieving student with an invitation to partake in an international honours society.

### RMIT Computer Science and I.T Society (CSIT) Industry Relations Officer

2015 - Present

- Involved in City of Melbourne think tank for aligning Computer Science students with the city's startup environment.
- Communicating with industry to organise placements opportunities for fellow students.
- Create workshops for students to share technical knowledge.

### RMIT Chess Club

President

2014 - 2017

- **Hosting the Victorian State Chess Championship** 2015 and 2016 between Melbourne University, Monash University, Swinburne Institute of Technology and RMIT.
- **Increased member base from two members to over one hundred and fifty.**
- Ensure weekly meetings occur, administration has been completed, set-up and pack up the boards each week.

## References:

Dr. James Harland  
**Associate Dean, Professor**  
Course Supervisor  
[james.harland@rmit.edu.au](mailto:james.harland@rmit.edu.au)

Dr. Daryl D'Souza  
**RMIT - Senior Lecturer**  
Oversaw Predictive Analytics Research  
[darylDsouza@rmit.edu.au](mailto:darylDsouza@rmit.edu.au)