

# What the 2pi Software RET 'Micro-credentials and Hackathons' Programme will be about - info for Job-Seekers, JAs and Hackathon Attendees

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# The 2pi Software Regional Employment Trial (RET) 'Micro-credentials and Hackathons' opportunity for the unemployed in the Bega Valley

In a nutshell - 'Removing access barriers to enable rapid tech upskill to get a job'

From the 2pi Software RET 'Micro-credentials and Hackathons' programme Job-seekers can :-

- **Participate in the Code-A-Job Hackathon** to explore tech opportunities and get a taster for what it feels like to build technology products and/or solutions as a profession
- Build on the encouragement and energy of this hackathon, for those who attend, to sign up for as many of the 5 Online Tech Micro-credentials offered as part of the RET programme - **specific digital employability skills to be targetted** include :-
  - AWS Cloud Basic Skills
  - WebSkills (the basics of WordPress/Drupal)
  - Coding
  - AgTech (Agriculture)
  - Artificial Intelligence (Machine Learning)
- All job-seekers registered with JAs, or voluntarily unemployed, resident in Bega, Bateman's Bay, Nowra and outlying regions can participate in the Tech Micro-Credentials programme
- Receive information on how to connect with tech communities in nearby metropolitan centres, or follow the Bega IntoIT Sapphire Coast ([intoitsapphirecoast.com.au](http://intoitsapphirecoast.com.au)) approach and form your own.
- Potentially significantly **improve job prospects in the dynamic and exciting tech sector**

## Why Tech Jobs?

The Tech Sector offers many career advantages :-

- With the explosive growth in coding and cloud technology globally, companies operating in Bega, Bateman's Bay, Nowra and outlying regions can provide professional code and cloud services to any company anywhere in the world.
- Technology businesses are generally less affected by seasonal business trends and have proven resilient in market downturns due to the productivity gains commonly enabled by technology.
- Tech skills are often transferable across multiple industry sectors often allowing great freedom of movement between companies and geographical regions
- Tech careers can be well remunerated and offer excellent lifestyle balance.
- Transport issues are a challenge for many job-seekers and these and other barriers to employment can in certain circumstances through working remotely (or even in your own home)

## RET 'Micro-credentials and Hackathons' Programme in more Detail

Attend the Code-A-Job Hackathon for a real tech experience and get inspired to participate in the programme of 5 Tech Micro-credentials

Three unemployment-themed 'hackathons' have been scheduled to be held in the months leading up to June 2020.

Although the Code-A-Job Hackathon are open to all ages and all members of the public, special priority and attention will be given to unemployed people to work with technically-minded mentors during a 1 day coding and cloud technology event. Of those attending, many will be encouraged to participate in the online Tech Micro-credentials being offered.

### Skills targetted for locally relevant industry sectors (within the Illawarra)

The online Micro-credential course material will place a strong emphasis on employability skills in industry sectors that have a strong footprint in remote areas such as local government organisations, agriculture and tourism, with a view to improving opportunities to secure enjoyable long-running locally-based employment.

**Cloud skills** in particular are required by almost all industry sectors - in recent years, having a physical large office computer, 'the server', has become less and less commonplaces as more cost-efficient, permanently on, highly well-maintained cloud based equivalents are adopted.

And with the continued explosive growth in internet service provision and e-Commerce, **website development** is needed by almost all small, medium and large sized businesses - an organisation's web presence and self-service online capabilities can often be pivotal to success. The tourism sector which is a critical to so many enterprises across the Illawarra is particularly heavily dependent on web bookings and online marketing.

Although **Coding** is not necessarily widely known as a career option in regional areas, this is changing as broadband speeds improve and software engineers seeking non-metro lifestyles make this a more common occurrence. A number of local government organisations in the Illawarra make use of coding capabilities to drive automation and efficiencies within their organisation.

It is widely perceived that technological adoption, or 'the digital age' has been slow to percolate into the agricultural sector, but due to improving communications networks and data transmission rates, and more widespread deployment of sensor networks (part of the so-called 'Internet of things', digitally-savvy farmers are entering a new era where their businesses can become more 'data-driven' and managed on a more scientifically sound footing. Farms across the Illawarra will be motivated to embrace AgTech and learn the skills involved in order to capitalise on the advantages this emerging field offers, and in some cases, will progress to invent or innovate in ways that benefit many communities in Australia, and potentially globally.

In the last 5 years, Artificial Intelligence (Machine Learning) allows brain-like deduction and decision-making to be enabled on a computerised system. The power of this capability in image recognition and pattern detection has universal applicability and virtually every industrial sector is adopting AI capabilities to some degree. Notable areas where AI is being considered by Illawarra-based enterprises and organisations includes drone-enabled weed detection, improved solar energy efficiency in high energy consumption environments and bushfire disaster predictive modelling.

## General skills targetted - an engaging way to upskill using fun and exciting 'tech toys'

The focus of the RET training and links to sector professionals will be in any, or all, of the following key areas, depending on participants personal tech preferences and/or aptitude :-

- Software Development of business software (ERP/CRM) using the PHP or Go programming languages, typically built on free and Open Source software stacks
- Cloud technology using Amazon Web Services - creating server infrastructure on the fly, networking, load balancing and high availability

- HTML/CSS/Javascript and Wordpress - Website creation and assembly
- Mobile Phone App Development for iPhone and Android typically in Swift, Java and/or React Native
- Systems support - computer repair, software maintenance, Backup and Recovery systems, Internet connectivity, Virus, Malware and Ransomware detection/remediation
- Applications of tech for in the fields of Music, Education, Agriculture, Mapping and Game-making

## Outcomes

Participants will benefit in the following ways :

- Learn current highly employable skills on which they can potentially build a great long-running career.
- Provide an opportunity to transform and add value to our traditional established local industries tourism and agriculture, and additionally new growth industries.
- Build an online body of work that can be included on their CV.
- Join a local tech community, or even start your own - linking up with the professionals involved in the RET programme, or other participants
- Passion and curiosity willing, consider forming your own Tech StartUp - the NEIS scheme and other opportunities to do so are available to assist in this regard