

## Letter of Graduation

For: **Emma Ashley**

Graduation Date: **5/10/2018**

This letter acknowledges Emma Ashley's achievement of completing the Enspiral Dev Academy Web Development Bootcamp.

Enspiral Dev Academy is an immersive and intensive software development training bootcamp. We train passionate people in practical programming skills. Our focus is on producing talented individuals with both technical and practical skills that can hit the ground running as software developers in a commercial environment.

Emma has been through a very intensive and challenging bootcamp. She has completed between 800 and 1,000 hours coding on multiple projects in a team environment.

Competencies achieved:

### Technical

- Deep understanding of programming fundamentals
  - Functions and high order functions
  - Data types (objects, arrays, etc.)
  - Data structures and algorithms
  - Functional programming and Object Orientation
  - Control flow with conditionals and iterators
  - Asynchronous programming (file system, database, and network)
- Testing and Test Driven Development
- GitHub and Git
  - Pull requests
  - Code reviews
- Debugging techniques in the browser and on the server
- Command line interface
- Editor - Visual Studio Code
- Building a web server from scratch with Node and Express
- HTTP protocol
- Designing RESTful routes for resources

- Server side rendering using templating engines
- Creation and migrations on relational databases
- Creating and testing web APIs
- Consuming third party web APIs
- Client side JavaScript frameworks (e.g. React and Redux)
- Cookies, sessions and authentication
- Social login and JSON Web Tokens (JWT)

#### Practical

- Giving and receiving feedback
- Understanding client needs through deep listening
- Awareness and appreciation of diversity
- Experience with playing different roles in teams (Developer, Product Owner, Scrum Master, customer)
- Managing conflict in teams, conflict prevention and resolution
- Agile techniques
  - Standups
  - Kanban boards
  - Task estimation
  - Sprints and sprint planning
  - Backlog prioritisation
  - Retrospectives
- Presentation techniques
  - Elevator pitches
  - Presenting technical topics to technical and non technical audiences

We found Emma to be a collaborative member of her cohort. She achieved a high standard and we wish her all the best in the next steps in her career. For any further information on Emma please contact Enspiral Dev Academy.

**Rohan Wakefield**  
Managing Director

