# COLETTE DUFFICY
## JUNIOR SOFTWARE ENGINEER

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## PERSONAL PROFILE

I am a highly personable and enthusiastic career changer who thrives on **problem solving** and **collaboration**, with a focus on building full stack web applications using **JavaScript**, **React**, **Express** and using **RESTful API** methods.

After a successful career as a **graphic designer** and **project manager**, I realised I needed a change. My choice of coding and software development was influenced by childhood nostalgia of tinkering with oscilloscopes and circuit boards, along with an love of STEM subjects and puzzle-solving.

During my time as an **Junior Instructor at CodeClan**, I found genuine satisfaction in melding my own learning with student learning. I embraced the challenge of **researching** and conveying complex concepts into **bite-sized**, **original** and **understandable lessons**. My ability to help students grow their self-confidence was vital for their success. Every day was unique, whether it was **mentoring or collaborating** with students and colleagues, or increasing my knowledge to design **scalable and maintainable web applications**. The dynamic environment constantly exposed me to new technologies and resources, driving my **self-development**.

## TECHNICAL EXPERIENCE

- JavaScript
- React
- Node.js
- MongoDB
- Express
- PostgreSQL
- SQL
- AWS
- Git
- HTML
- CSS
- Python
- Flask
- Jinja
- Compass
- Insomnia
- Mocha
- Assert
- Java
- Spring
- Hibernate
- Jira
- Kanban
- Trello
- Figma
- Excalidraw
- Photoshop
- Illustrator

## ADDITIONAL SKILLS

- Project planning
- Analytical thinking
- Mentoring
- Relationship management
- Project and Stakeholder management
- Graphic design
- Commercial awareness

## PROJECTS

**WEIGHT MATE** - Personal development project, in production
A JavaScript and React based weight-lifting app, that allows a single user to have an overview of their weight lifting progress. Using exercise data sourced from an API, and saved to a MongoDB using Express and Node. Next steps includes further logic development, and deployment using Vercel.
github.com/ColetteDufficy/weight_mate_app

**DINOPEDIA** - Group Project
A JavaScript and React based app, created to support children to learn about dinosaurs. Data is sourced from an API, then filtered and saved to a MongoDB using Express framework.
github.com/ColetteDufficy/dinopedia

**PIGGY SPENDING TRACKER** - Solo Project
An OOP based spending tracker app that allows a single user review their spending. Using Jinja, Django, SQL and PostgreSQL on the backend, with Python, Flask, HTML and CSS on the front-end.
github.com/ColetteDufficy/piggy_spend_tracker

### LEARNING OUTCOMES
- **Git branch management** to ensure effective file collaboration;
- Project planning and management, task allocation with collaborative work achieved via **Trello** board and **Agile** methods;
- Achieving fully functional **CRUD** operations;
- Designing **RESTful routes** to correspond with **HTTP requests**, to allow for server and client to communicate;
- Application of **SOLID principles**, to promote maintainability, function reusability and potential scalability;
- Utilising data from an **open source API** and non-relational **MongoDB** maintenance;
- Utilising **React** and **Express** frameworks to build front-end and back-end, respectively;
- Manipulating relevant data using **Python** and **PostgreSQL**, and connected it to the front-end using **Flask** and **Jinja**;
- **CSS** styling applied to improve application aesthetics and UX;
- Utilising **Photoshop** and **Illustrator** software to create supporting visual elements and logos.

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## EXPERIENCE

### Junior Instructor
**CodeClan, Edinburgh** 08/2022 – 08/2023

- **Junior Instructor** delivering the Professional Software Development curriculum over a 16-week timeframe;
- Research and delivery of complex concepts in an engaging, clear and understandable way. Teaching highlights include:
  - The concept of a **Promise** in JavaScript, and its use in a chain of **asynchronous** operations;
  - The benefits of **Composition over Inheritance**, and how to create an interface;
  - **Test Driven Development** using various testing frameworks and GUIs eg **Unittest, Mocha** and **Insomnia**;
  - Differences between **relational** and **non-relational databases.**
- Responsible for student support and **mentoring** including wellbeing and mental health support;
- Lead contact for the reskin and delivery of **RUTS** (Rural and Urban Training Scheme) course materials:
  - RUTS provide Vocational Training for disadvantaged teenagers, and Employability Skills for adults in the Edinburgh area;
  - **Google Document** based learning materials were tailored specifically for each audience.
- Responsible for the submission and review of **GitHub PRs**;
- Continuous development of my software skills as part of my CPD, eg deploying my Weight Mate app via Vercel;
- Responsible for the creation of the Youth Academy **SQA PDA** examinations, and the assessment of student PDA submissions.

### Student
**CodeClan, Edinburgh** 02/2022 – 07/2022

- Professional Software Development Course, covering:
  - Numerous **languages**, **frameworks**, **dependencies** and **TDD**;
  - **Relational and non-relational databases**, including **SQL** statements;
  - Concepts included **OOP, SOLID** principles, **DRY** code, **RESTful** routes, **Agile** methodology, **CRUD** operations and **HTTP** requests.

### Full time parent/ carer
03/2016 – 02/2022

### Senior Account Manager
**Emperor Design, Edinburgh** 10/2013 – 02/2016
**RR Donnelley GDS, Edinburgh** 05/2012 – 10/2013

- Single point of contact for clients including **HarperCollins UK** Print on Demand service;
- Responsible for monitoring **client communication**, **data analysis** and **query resolution**;
- Collate statistical and qualitative information such as **financial reporting**, quantifying order volumes and **SLA performance**;
- Lead individual on systems support for client, including absorption of files into the online digital platform, preflight management and systems wide **troubleshooting and resolution**;
- Lead on master **scheduling and budgeting;**
- Analyse processes and data to identify efficiencies, drive change, grow value and add improvements.

### Account Manager
**442 Design, Edinburgh** 02/2011 – 05/2012

- Account owner for **RBS Group** and **Edinburgh Airport;**
- **Project lead** on multiple projects, from initial enquiry to implementation, dissemination and fulfillment;
- Creating and maintaining **excellent customer relations**, and being proactive in identifying and offering solutions by using my comprehensive knowledge and understanding of creative graphic design consultancy;
- Full understanding of clients' digital resources and communication channels.

## EDUCATION

### CodeClan
Feb 2022 - July 2022
Professional Software Development
Scottish Qualifications Authority, Level 8 Award

### Napier University
Jan 2020 - Mar 2020*
MSc Computing: Web Design and Development Module
* Covid lockdown meant I was unable to continue.

### Limerick Institute of Technology
1997 - 2001
BA (Hons) Graphic Design Communication
2:1 (SCQF Level 10)
- Design communications and typography
- Professional practice
- Critical and contextual studies
- Self-initiated solo and team projects