Tom Lacy-Alcock

Full-Stack Software Developer

Leeds
07972 309 487
alcocktom94@gmail.com

Portfolio
tomlacyalcockportfolio.netlify.app/

Github
github.com/tomalcock

Linkedin
linkedin.com/in/tom-lacy-alcock-b28b84283/

Personal Statement

Transitioning from a background in Education Management to Software Development, I am discovering a deep passion for the rewarding and intellectually stimulating world of coding. My intrinsic curiosity about how things function drives my motivation, and I find coding provides the mental challenge I crave. With a track record of determination and resilience, I am eager to contribute to a team with a strong learning culture, where I can further enhance my development skills and create Software that positively impacts people's lives. The combination of problem-solving and meaningful impact in programming excites me, and I look forward to the opportunity of joining your company.

Technical Skills

Languages: Javascript, using Node.js and browsers as environment
Testing: Test Driven Development, Jest, Supertest
Back-end: SQL, PostgresQL, Firebase, Seeding, Migration
Front-end: HTML, CSS, TailwindCSS, Next.js, React, Phaser, Lighthouse and other Accessability Tools
Hosting: Render, Netlify, Github
Other: Paired Programming, technical communication, SDL, Agile and SCRUM methodologies, version control GIT

Projects

Full stack desktop game - Pixel Plunge *(Github: https://github.com/sting-arrays/pixel-plunge, Link to App: https://pixel-plunge.netlify.app/)*

Description: A desktop game built in React with Firebase as the backend housing the databases and user authentication and Phaser as the 2D game framework. A player can use a guest account or sign in, collect fish, unlock fish in a Fishidex and upgrade fishing net and oxygen levels.
Languages and Technologies: Javascript, React, Phaser, Firebase, Tailwind CSS.
Barriers and how I overcame them: Understanding Phaser as a brand new framework, considering the documentation is not detailed enough for a beginner. To overcome this, we carefully discussed the documentation at each step of developement and looked for other video tutorials and articles to help us build up the layers of the game; for example, the physics of the player and how each game scene interacted with each other.
Soft skills: Agile methodology where we followed the cycle of meet, plan, design, develop, test and evaluate. We utilised a Scrum framework that included Sprints, Sprint planning, Spring Standups, a Sprint Ceremony and the use of a Kanban board. I also took a leading role in managing the team to ensure everybody in the team felt well supported.

Full stack app - NC News *(Github: https://github.com/tomalcock/nc-news, Link to App: https://nc-news-tla.netlify.app/ note: give initial render approx. 1 min)*

Description: C.R.U.D social news application where users can browse articles, sort articles, log in as a dummy user, vote on articles, comment and delete comments. There is also error handling where I had to decide whether to handle this client side or server side and create error handling components that are reusable. The backend is described below.
Languages and Technologies: Javscript, React.js, Vite, React-Router, CSS, Axios
Barriers and how I overcame them: Props drilling and ensuring components had the states they needed to function and not overusing states within components. This required a carefully planned wireframe, detailing how components interact with each other, as well as keeping components small and avoiding excessive use of state.
Soft skills: Liasing and collaberating with peers to problem solve and creatively brainstorm problems. Offer guidance and support to others to facililate their learning

Backend - NC News *(Github: https://github.com/tomalcock/backend-project, Link to App: https://nc-news-backend-project-ohqj.onrender.com/api)*

Description: Back-end API that allows for get, post, delete and patch requests and queries to a database about news articles, users, posts and comments. I also utilised the red green refactor model and Test Driven Developement to break down the problems into small, manageable lines of code.
Languages and Technologies: Javascript, PostgresQL, Express,js, Jest, Supertest, Husky, Dotenv, pg, pg-format
Barriers and how I overcame them: Separating functions into Models and Controllers and ensuring all exports and imports were consistent. I overcame this by ensuring my testing was detailed and consistent, writing 52 tests overall. Git conflicts were common as we collected feedback throughout the project. I learnt how to make pull requests and successfully review the conflicts through GitHub and VSCode before merging.
Soft Skills: Resilience, determination and working under pressure as we had a week to complete our API

Experience and Employment History

Trainee Software Developer (Full Stack) (Software Development Bootcamp) (Aug 2023 - Nov 2023)
Northcoders, LS1 1BA

- Understanding the fundamentals of Javascipt, including using TDD, OOP and recurrsion
- Be able to conduct unit, integration and end to end testing to detect and fix bugs
- Be able to work on the Back End using Javascript. This included using Node.js to run the code, dealing with asynchronous programming, developing APIs and databases using Express.js, PostgresSQL and Firebase
- Be able to work on the Front End using the DOM, React.js and libraries such as React-Router, Next.js,Tailwind CSS and Phaser

Mathematics Tutor (Aug 2023 - present)
Spires, W8 7NA

Mathematics Plus Tutor and Mentor (Oct 2023 - present)
The Tutor Trust, LS2 8BB

- Planning and delivering 1-to-1 2, or 3 and tutoring sessions for KS3, KS4 and KS5 pupils
- Monitoring progress and communcating this back to teachers, school co-ordinators lead tutors and parents
- Marking progress checks and setting homework for the pupils
- Mentoring pupils that are no longer in main stream education because of challenging social needs

Faculty Leader / Assistant Faculty Leader, Maths and Computer Science (Sept 2020 - Aug 2023)
St Mary's Mention Catholic Voluntary Academy, LS29 6AE

- Raising, and being accountable for, standards of attainment and achievement within the Faculty
- Leading and Managing a group of 10+ people
- Monitoring and supporting student progress
- Collaborating with other managers across Leeds, contributing to various whole city projects
- Analysing data and problem solving on a daily basis
- Developing and enhancing the teaching practice of others
- Ensuring the provision of a broad, balanced and differentiated curriculum for pupils within the Faculty
- Accountability for leading, managing and developing the whole Faculty
- Mentoring NQT and trainee teachers
- Working in a fast paced environment

Teacher of Mathematics and KS3/4 Achievement Lead (June 2016– Aug 2020)
Carr Manor Community School, LS17 5DJ

- Raising, and being accountable for, standards of attainment and achievement within the departments, particularly focusing on years 7,8 and 9
- Planning and delivering high quality lessons for pupils at KS3, KS4 and KS5
- Mentoring NQT and trainee teachers
- Working in a fast paced environment
- Collaborating with other managers across Leeds, contributing to various whole city projects

Education

Leeds Trinity University (Sept 2015 - July 2016)
Post Graduate Certificate in Education with Leeds School Centred Initial Teacher Training

University of Manchester (September 2012 - July 2015)
BSc (Hons) Mathematics - 1st class