Jake Jones

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Graduate of the Northcoders bootcamp looking for Junior Developer roles. Experience includes building python and node.js backends coupled with React. Eager to grow skills and continue learning in a talented team!

Projects

Mates Rates Web Game (May – Aug 23)   https://github.com/jakejones2/mates-rate | https://matesrate.net

- Multiplayer web game using Django Channels async/asgi framework and websockets for real-time interactivity.
- Unit testing with unittest, end-to-end multiplayer testing with interacting instances of Selenium. Type-checked with mypy.
- Deployed on AWS with Elastic Beanstalk, ElastiCache, RDS and Route 53, using eb cli and platform hooks.

Daily Express.js (Sep 23 – Oct 23)   https://github.com/jakejones2/nc-news-app/ | https://nc-news-68e5d5.netlify.app/

- Front-end website for *Articles-API*. Uses React, Typescript, composed functional components, JSX templating, SASS CSS.
- State, effect and context hooks achieve UI/UX interactivity, modular loading, infinite scroll and optimistic rendering.
- Features React Router v6 navigation and URL params, responsive CSS with flex and media queries to BEM standard.

Articles-API Backend (Aug 23)   https://github.com/jakejones2/articles-api | https://articles-api-zepx.onrender.com/api

- RESTful API for a social media website built with Express.js. Features CRUD operations, db seeding, querying, pagination.
- Built using TDD with jest. Implemented branch protection, CI/CD with GitHub Actions, pre-commit testing with Husky.
- Created own authorisation middleware with secure, http-only cookies, refresh/access JWTs and password hashing/salting.

Swim Wild (Sep 23 –)   https://www.youtube.com/watch?v=Ijmxn4ugKPQ

- React Native mobile app providing analytical/social content for outdoor swimmers. Express + MongoDB backend.
- Device location, gallery and camera all leveraged. Polynomial regression analysis predicts water temps.

Reinforcement Learning with Coup (Oct 23 –).   https://github.com/jakejones2/coup-RL

- Built a PettingZoo (multi-agent Gymnasium) environment for the card game 'Coup' with action masking, async turn-taking.
- Currently working on an RLlib PPO algorithm which trains a TensorFlow model to play the game optimally.

Skills

Languages: Javascript, Python, Typescript
Backend: Django, Django Channels, Express, MongoDB, Mongoose, MyPy, MySQL, Node, Postgres, SQL
Frontend: BEM, CSS3, HTML5, JQuery, React, React Native, Redux, SASS, Tkinter, Vite
Data/Testing: Gymnasium, Jest, NumPy, Pandas, PettingZoo, Pytest, Regex, RLlib, Selenium, TensorFlow, Unittest
Tools/Cloud: AWS, Auth0, Docker, Expo, Firebase, Git, Github Actions, Google Cloud, Unix, Zsh

Experience

Northcoders Software Engineering Bootcamp (Jul 23 – Sep 23)

- Applied test-driven development, functional and object-oriented styles, SOLID principles, and accessible front-end design.
- Emphasis on agile practices incl. pair-programming, spiking, leading standups, Kanban, code reviews, MVP deadlines.
- Handled git pull requests, merge conflicts and branch protection, practiced forking and feature branching workflows.

University of Michigan / Coursera Courses (Dec 22 – Mar 23)

- Django for Everybody: data normalisation, Django ORM, MVC architecture, HTML templating, auth/CSRF middleware.
- Python for Everybody: Python scripting, regex, web-crawling and scraping with BeautifulSoup.

Self-Employed Musician (Sep 22 –)   https://soundcloud.com/jake-jones-137

- Led and designed the music curriculum at a primary school for all year groups, delivered assemblies and productions.
- 100% instrumental exam pass rate, inclusive practitioner working with special educational needs and vulnerable adults.
- Performance credits include Marin Alsop, Edward Gardner, Katie Melua, Gregory Porter, Olly Murs, Clare Teal, Alex Bone.

Education

University of Oxford, Wadham College (Oct 21 – Jul 22)

- MSt in Musicology with **distinction** and the Wadham College Examination Prize
- Hilary term essay recommended for publication and involved YouTube data analysis.

Guildhall School of Music and Drama, with scholarship (Sep 17 – Jul 21)

- First-class degree with Concert Recital Diploma for recital distinction. Dissertation nominated for Rose Lawrence Award.
- **Chairman's Prize** for outstanding academic performance and the highest overall mark in cohort

Beckfoot School, Bingley (Sep 07 – Jul 17)

- **A-levels:** Mathematics A*, Physics A*, Music A*, **AS-level:** Further Maths A, **GCSE:** 11 A*