The Alan Turing Institute

EverybodyCounts Limited – Data Science Intern

TIN-EBC-001

About the Organisation

EverybodyCounts Ltd, an exciting EdTech start-up revolutionizing maths education. Our online platform leverages the Maths Mastery method to teach children in school years 1 to 6, fostering a love for maths through innovative learning experiences.

Role Description and Responsibilities

EverybodyCounts is not just numbers, but a pathway to understanding and supporting the diverse tapestry of learners' minds. Your journey with us will be one of innovation, impact, and profound learning.

You will be instrumental in a groundbreaking project that uses longitudinal maths education data to unravel the mysteries of neurodiversity in students, focusing on conditions like **Dyscalculia, Dyslexia, and forms of Autism**. This is not just another data science project; it's an exploration into uncharted territories of educational technology. As part of a small, agile startup, your contributions will have an unusually high impact, directly influencing the future of our company and the approaches we take in machine learning.

Your days will be filled with building and analysing datasets, a task that will see you laying the groundwork for our ambitious project. You will be piecing together a complex puzzle, ensuring the integrity and quality of data from students with one or more diagnosed neurodiversity. This is a critical step in creating a model that understands and predicts learning patterns.

Then comes the heart of your role - the development of predictive models. Here, you will be at the forefront of innovation, creating algorithms that can potentially transform the way we understand and support neurodiverse learners. Your work will not only apply existing methodologies but also require you to think out of the box, innovating new approaches tailored to the nuances of our unique dataset.

As you delve into the complexities of data, you will also be tasked with making this information understandable and accessible. Through intuitive and informative data visualizations, you will bridge the gap between complex data science and practical educational insights, making your findings a valuable tool for educators and stakeholders.

Collaboration will be key. Working closely with our product development and engineering teams, you will help integrate these sophisticated data science solutions into our educational platform, ensuring they are effective and user-friendly.

In this role, you will not only be keeping up with the latest trends in data science and education technology but also be expected to bring fresh, innovative ideas to the table. Your proactive

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approach in suggesting and implementing new solutions will be crucial in advancing our educational technology and enhancing the learning experiences of our users.

Expected Outcomes

By the end of your placement with Everybody Counts, your contributions will have painted a picture of success and innovation. You will have developed a robust predictive model using our longitudinal maths education data. This model, a pioneer in its field, will effectively identify potential indicators of neurodiversity, providing a nuanced and less intrusive method of support for students.

Your efforts will enhance our data collection framework, integrating new and relevant data points to capture the nuances of neurodiverse learning patterns. This improved framework will not only increase the model's accuracy but also its efficacy in real-world applications.

The impact of your work will be far-reaching. Through the development of the model and your data analysis, you will have contributed significantly to a more inclusive educational environment. Your work will offer a novel approach to supporting neurodiverse students, revolutionizing the traditional methods of neurodiversity identification. By moving away from stressful and sometimes culturally sensitive traditional screening methods, you will have played a key role in creating a more empathetic and effective approach to understanding and supporting students with Dyscalculia, Dyslexia, and Autism.

In terms of collaboration, your success will be seen in how seamlessly your data science solutions are integrated into our educational platform, enhancing both its functionality and the user experience. The collaborative efforts with other teams at Everybody Counts will not only demonstrate your ability to work in a team environment but also underscore the importance of interdisciplinary approaches in tackling complex challenges.

Your internship will also be marked by the innovation you bring to our project. As the first of its kind to use live and longitudinal data from a child's maths education journey for neurodiversity screening, your contributions will set a new precedent in educational technology. This innovative approach has the potential to change the landscape of education for neurodiverse learners.

Professionally, your growth during this internship will be substantial. Not only will you refine your technical and analytical skills, but you will also gain invaluable experience in applying data science to real-world challenges in the education sector. The experience of working in a small startup like Everybody Counts will provide you with unique insights into how agile, innovative companies operate and impact their fields.

In essence, your internship at Everybody Counts is more than just a learning opportunity; it's a chance to be a part of a revolutionary project in EdTech. Your work will have a direct influence on our company's path and on the educational experiences of countless learners, marking a significant step forward in how education systems support neurodiverse students.

Supervision and Mentorship

As an EdTech startup, EverybodyCounts Limited believes that effective mentorship is key to professional growth and development.

As a Data Science Intern, you will be under the guidance of our experienced development

team and directly mentored by the Chief Technology Officer.

This mentorship will include weekly meetings to discuss your progress, tackle any challenges you might be facing, and identify new learning opportunities.

We are committed to not just overseeing your work but also to fostering your professional development. This commitment extends to providing access to learning resources and encouraging participation in relevant workshops and conferences. Our aim is to create an environment where you are continuously learning, growing, and contributing significantly to our mission.

Person Specification

The successful applicant will be someone who embodies a blend of technical expertise, innovative thinking, and a passion for education. The ideal candidate should meet the following criteria:

- **Educational Background:** Must be studying a PhD in Data Science or a related field such as Computer Science, Statistics, or Applied Mathematics. This educational foundation is essential for the depth of understanding required in this role.
- **Technical Proficiency:** Should have a strong grasp of programming languages and tools relevant to data science, particularly Python, R, and SQL. Experience with machine learning libraries and frameworks will be highly advantageous. In addition, experience with graph databases would be an asset.
- **Analytical Skills:** We value candidates with a keen analytical mindset. You should be adept at interpreting complex datasets and translating them into meaningful insights. This skill is crucial for both the predictive modeling and personalized learning aspects of the role.
- **Innovative and Creative Thinking:** The ability to think outside the box is key. We are looking for someone who can not only work with existing models and frameworks but also contribute innovative ideas to enhance our learning platform.
- **Passion for Education and Technology:** A genuine interest in the intersection of education and technology is vital. Your enthusiasm for leveraging data science to revolutionize learning experiences will drive your success in this role.
- **Communication Skills:** Excellent communication skills are necessary. You should be able to articulate complex technical concepts in a clear and understandable manner to a diverse audience, including team members who may not have a technical background.
- **Collaborative Spirit:** The ability to work effectively in a team environment is important. We value individuals who can collaborate with various departments and contribute positively to a shared goal.
- **Commitment to Continuous Learning:** As the field of data science is ever-evolving, a commitment to continuous learning and professional development is crucial. We seek individuals who are eager to stay updated with the latest trends and advancements in the field.

Internship Logistics

Salary: £35,000 per annum pro rata

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Location: Remote, although ideally, a candidate would be willing to travel to the greater Bristol area for initial onboarding and ideally catch-up meetings. A successful applicant will also be given the option of working in the office if they so choose with the rest of the development team.

Contract Duration: One Year, part-time

Start date: Flexible but Spring/Summer 2024

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