Candidate Brief for the Position of CTO Dr Frost Learning

About Dr Frost

At Dr Frost Learning, a mission-driven charitable organisation, we believe that every student deserves the opportunity to excel in mathematics, regardless of background. As we grow, we are seeking a dynamic and hands-on CTO to help us deepen our impact and lead the next phase of our technological evolution. You will be joining our small, dedicated team and work with our CEO to deliver on our strategy.

About the Charity

Our product, Dr Frost Maths, supports teaching and learning of Maths from KS3 to A level, allowing students to learn online whether via their school or independently. We provide teaching resources and innovative question practice, to enable young people to maximise their potential in mathematics in and out of the classroom. https://www.drfrost.org/

Tens of thousands of teachers, and hundreds of thousands of students use our product and our paid subscription base is set to grow to over 2,000. As we enter our fourth year as a charity, our priorities are to deepen the engagement with our platform and our offering in Maths so as to widen our impact for teachers and students particularly in schools with high levels of social deprivation; grow our subscription base so as to migrate from a reliance on philanthropic funding to a full subscription model.

Our brand recognition is incredibly high. Our reach into schools, across the UK and beyond, is very strong. Our charitable status differentiates us from our competitors.

The Role and Responsibilities

Reporting to: CEO

Direct Reports – 3 Full Stack developers, 1 question content developer and 1 designer with the aim to hire one junior developer to take the team to 6.

Key Colleagues – Product Manager, Chief Mathematician/Founder, Head of Content and Customer Support

Key Responsibilities

Technical Direction and Delivery

Overall responsibility for the technological direction of the Dr Frost platform which uses ReactJS for the front-end and PHP for the backend. This will include:

- Developing technology roadmap to support growth, long term resilience and profitability.
- Managing technology architecture and working methodology including the use of AI in development.
- Collaborating with the CEO and other senior team members when prioritising platform developments to grow user numbers and engagement and align with company strategy.
- Driving delivery of platform changes so as to improve the functionality and sustainability of the platform, working directly on engineering issues where needed due to the small size of the team.

Strategy and Innovation

Provide the technical vision for DFL which is in line with the maturity of the business and its financial resources.

- Develop methodology to ensure a small team can deliver at speed
- Identify new technologies that can be used to improve the Dr Frost platform. Consider use of AI for feature extension and provide strategic input into platform development.
- Stay up to date with new technologies so as to support DFL and enable future growth.

Quality Control and Testing

Responsibility for ensuring appropriate quality control and a robust QA process and testing culture.

- Diagnose issues and implement bug fixes to existing code
- Ensure systematic testing and adoption of test automation where appropriate.
- Ensure performance of regression testing on all new code

Technical Customer Service

- Help manage responses to technical customer service issues.
- Ensure rigorous prioritisation of customer service issues and a response in appropriate time.
- Foster a culture of resolving issues at the same time as making improvements so as to reduce the volume of issues on an ongoing basis.

Infrastructure

Ensure the continued development and maintenance of IT infrastructure in line with the size of the operation and supporting future growth.

- Responsibility for cloud hosted servers on Google Cloud, including uptime, performance and cost.
- Maintenance and implementation of technology tools utilised by the company, including Google Workspace, Zendesk support and CRM.

Compliance and Security

Take active responsibility for security architecture and compliance

- Ensure compliance with GDPR and similar legal frameworks.
- Set clear policies and procedures for access control and encryption
- Manage technology aspects of risk register, clearly communicate issues and mitigate risks

Leadership and People Management

As a member of the management team working in a collaborative and results driven culture you will be responsible for:

- Line management of the development team to foster problem solving and creativity and connection with the charity.
- Recruitment and mentoring of additional developers.
- Establishing strong development processes to increase productivity and development speed without sacrificing quality.
- Tracking performance against engineering KPIs
- Acting as a partner to the CEO, ensuring close collaboration so as to drive results and foster a positive company culture
- Being the technical face of the Charity representing the technical vision and achievements to philanthropic investors and key stakeholders.

Attributes

- Be customer focused so as to craft a customer-centric product, focusing on solving customer pain points in a speedy manner
- Ability to understand the technical maturity of the existing product, assess the technical debt and have the prerequisite knowledge to direct the team.
- Ability to write code where needed, lead by example and jump on emergency situations as appropriate.
- Experience of utilising AI in development
- A passion for education and close alignment with DFL's vision of equality of opportunity in UK Maths education and its mission to support teachers to enable student success regardless of background or social circumstances.

Person Specification

Essential Criteria

- Proven experience scaling early- or growth-stage technology businesses.
- Ability to work at pace, utilising limited resources without sacrificing quality.
- Demonstrable leadership of development teams, with a willingness to "roll up your sleeves" and code when needed.
- Strong understanding of technical maturity, technical debt, and the ability to direct platform evolution.
- Strong knowledge of PHP and ReactJS
- Customer-focused mindset with a track record of developing solutions that solve user pain points.

Desirable Criteria

- Experience of leveraging AI in product development and the ability to coach a team to use AI appropriately.
- Background in SaaS businesses serving both B2B markets and consumer users.
- Passion for the transformative power of a good maths education

Experience

- At least 7 years working in an engineering role with 5+ years managing development teams

Benefits of Working for Dr Frost Learning

- Six figure salary with pension and salary sacrifice.
- Flexible working options considered for the right candidate.
- 25 days holiday, plus bank holiday
- Fully remote working with the option of using our London co-working space as much or as little as required

How to Apply

To apply, please send a CV and a cover letter of up to two pages outlining your interest, suitability for the role and explanation of how you match the person specification. Please indicate your current salary, terms of notice and availability. All applications are to be submitted to jobs@drfrost.org.

For a confidential discussion please contact Katharine Jackson at katharine@drfrost.org or +44 07725 372158

Diversity and Inclusion

We care about diversity and inclusion and are committed to building a diverse and inclusive team. Applicants from all backgrounds are encouraged to apply.

Key Dates

Deadline for applications midnight on **: Tuesday 6th January**

Shortlisting: First week of January

First Round Interviews and assessment: w/c 12th January

Panel Interviews: Mid January

Team Assessment: End of January