

# bytefuse



## About the Company

Bytefuse is an Artificial Intelligence (AI) Research and Development company that forms part of the Alphawave Group. We operate as a rapid prototyping unit that **collaborates with partners** to understand the complexities within each **unique context** to develop solutions that solve immediate, real-world challenges.

**We are on a mission to improve lives through contextual AI**, and have a great deal of work ahead of us. If you want to make a tangible impact, keep pushing your understanding of the world of AI and work with a team of leading experts then Bytefuse might be the right place for you.

## Our Team and Environment

We're a team of innovators, problem-solvers, and creators, who are **curious and optimistic** about new opportunities and challenges. We encourage **unconventional thinking**, and exploring different approaches to solving problems. Our startup culture creates a **safe-to-fail** and familiar environment where our team can collaborate, learn, experiment, hone their skills, and contribute to **solving real-world problems**.

We are committed to the **personal growth and development** of our team and support the participation in **international conferences**.

## Our Offices

We have offices, situated within **Techno Park**, in the beautiful surroundings of Stellenbosch, and **Montague Gardens**, close to the centre of Cape Town. We offer flexible working hours, allowing for a healthy work-life **balance**. The team can work remotely on Wednesdays. We have unlimited barista style **coffee**, and the option to order daily meals for lunch.

## Job Description: Research Engineer

As a Research Engineer, you will use both your research and technical skills to play a key role in developing and validating mathematical models, algorithms and code that support Bytefuse's team of developers, machine learning experts and data scientists to deliver innovative and meaningful AI products.

We are a small (but growing) team which allows you to influence how we think about and solve problems. We are working with extremely challenging problems and you'll have the opportunity to shape our products.

## Key Responsibilities

- Work on projects from conception to completion to reach our research objectives, running and optimising experiments, conducting data collection and analysis, and interpreting results.
- Collaborate with the team to integrate research findings into product development processes and drive innovation across the organisation.
- Know when to move fast, and when extra planning is required.
- Write clean and maintainable code using best practices and industry standards.
- Participate in code reviews and provide constructive feedback to team members.
- Stay abreast of the latest developments in AI and ML, from research to tooling.
- Communicate effectively with team members and stakeholders, providing regular updates/reports on project progress and identifying any potential risks or challenges.

## Qualifications

- Masters degree in Computer Science, Engineering, or related field. 3-5 years of experience in research engineering, applied research, or a related field, with demonstrated expertise in experimental design, data analysis, and interpretation.
- Proficiency in Python, deep learning frameworks such as PyTorch, and experience with distributed training methodologies.
- Experience with Transformers and NLP is a bonus.

- Experience working with large datasets (like billions of tokens large).
- Strong analytical and problem-solving skills, with the ability to formulate research hypotheses, design experiments, and draw meaningful conclusions from data.
- Experience with Agile development methodologies and tools and experience working in Agile teams.
- Strong communication and collaboration skills, with the ability to work effectively in a team environment.

## What can you expect from Bytefuse?

- Competitive salary
- Generous leave policy
- Flexible working hours with WFH Wednesdays
- Opportunities to grow and develop a career in the world of AI and ML.
- Offices with lunch and barista-style coffee

## How to Apply?

Email your CV to [careers@bytefuse.ai](mailto:careers@bytefuse.ai) with the Job Title of the role you are applying for in the Subject Line. Please reach out if you have any questions.