

# NATHAN JOHN JONES

COMPUTER SCIENCE SPECIALIST IN MACHINE LEARNING AND HUMAN-AI INTERACTION

## EXECUTIVE SUMMARY

Nathan John Jones is currently pursuing a Computer Science degree at Durham University, focusing on Machine Learning and Human-AI interaction. With an extensive GitHub portfolio, Nathan exhibits proficiency in multiple programming languages and technologies. His projects denote expertise in TypeScript, Python, and JavaScript, with a strong inclination towards TypeScript frameworks like React and Node.js. Despite being a student, Nathan has contributed significantly to several complex projects, showcasing his technical acumen and collaborative spirit.

## TECHNICAL EXPERTISE

**Programming Languages:** Python, TypeScript, JavaScript, HTML, Dart, Java, C, PHP

**Frontend Development:** React, TailwindCSS, Vite

**Backend Development:** Node.js, Firebase, Express, Prisma

**Machine Learning:** Python ML Libraries

**DevOps:** Docker

## PROJECT HIGHLIGHTS & TECHNICAL EVIDENCE

### Basely-connect (Private Repository)

*Stack: TypeScript, Node.js, TailwindCSS, React, Prisma*

Collaborating with a small team, Nathan played a critical role in developing a TypeScript application using modern frameworks like React and Prisma. This project had a significant size indicating complexity, with 106,383 lines of TypeScript and over 1,635 lines of JavaScript, requiring sophisticated integration of CSS and backend development.

### DuTournys (Private Repository)

*Stack: JavaScript, Node.js, Docker, Express*

This project highlights Nathan's capability in full-stack development, utilizing JavaScript significantly. Docker was used for containerization, ensuring scalable and consistent development and production environments.

### fact-or-fake-game (Private Repository)

*Stack: TypeScript, Node.js, React, Vite*

Nathan co-developed this TypeScript application which extensively used React for frontend and Vite for fast and modern build tooling, marking substantial size and function, with primary contributions in TypeScript and JavaScript.

## im\_project (Private Repository)

Stack: Python

Focused on Python, this project demonstrates Nathan's understanding of machine learning models. The use of 17,671 lines of Python indicates a thorough investigation into AI concepts.

## ProjectAstra

Stack: Dart, Python, C++

Utilizing a wide language palette, Nathan's work on ProjectAstra employs Dart, Python, and C++. This project reflects diverse capability in managing complex projects with multiple languages and opposing paradigms.

## TOP STRATEGIC COMPANY MATCHES

### G-Research - 94.52% Strategic Fit

The candidate's in-depth experience in machine learning and Python strongly aligns with G-Research's focus on AI and projecting complex systems. Nathan's technical projects, especially 'im\_project', where he delved deeply into AI models, showcase his ability to handle large and complex codebases, a trait essential for G-Research as it deals with advanced deep learning tools like PyTorch and Polars. Moreover, G-Research values scientific methodology and a deep understanding of subjects, both of which Nathan exemplifies through his pursuit of cutting-edge technologies and a career goal of contributing to transformative AI systems.

### IMC trading - 91.23% Strategic Fit

Nathan's passion for exploration in the domain of AI and machine learning directly aligns with IMC Trading's ethos of innovation and pushing boundaries. His project 'im\_project', focused extensively on AI models and Python, demonstrates a robust technical understanding and an innovative edge that complements IMC's focus on quantitative methodologies, using Python and C++ within its tech stack.

Furthermore, IMC values a collaborative culture without hierarchies, which fits Nathan's exposure to working

### Qube Research and Technologies - 89.79% Strategic Fit

Nathan John Jones epitomizes the blend of technical versatility and collaborative spirit sought by Qube Research and Technologies. The company's focus on a flat structure and the importance of leadership skills are echoed in Nathan's extensive project work, where he has taken on significant roles. His coding versatility is evident in projects using Dart, Python, and C++, and problem-solving orientation is shown in G-Research's Python, C++, and C++ projects. Nathan's technical skills and collaborative spirit align with Qube's focus on addressing complex challenges. The culture at IMC, looking for individuals free from being simply categorized as graduates or interns, syncs well with Nathan's experience. He has consistently demonstrated motivation and the ability to energize project teams with his involvement, suggesting that he would adapt well to a company with a strong desire for innovative thinking. The work on DuPurnys, integrating JavaScript on both the front and back end, illustrates his technical acuity and ability to manage scalable solutions, aligning with Qube's cultural values of integrity, collaboration, and proactivity. His projects often involved substantial codebases and complex system integrations, much needed at Qube where early career hires are given serious responsibilities. All these aspects paint Nathan Jones as a stellar candidate for IMC Trading, where his technical experiences in machine learning along with a capable and collaborative spirit can be leveraged to advance the company's mission of innovation and exploration within the financial trading space. Qube's flat structure suits Nathan's ability to work autonomously on projects, while also effectively collaborating with team members, as seen in 'Basely-connect.' This framework allows and appreciates the candidate's leadership qualities and teamwork abilities. Nathan's ability to organize and contribute to sizable collaborative endeavors shows readiness for Qube's team environment focused on soft skills and integrity.

Culturally, Nathan's ability to proactively engage with complex and large-scale problems across different programming paradigms reflects Qube's innovative mindset. His aspirations to explore cutting-edge AI and ML position him as a visionary fit for a company seeking those who can think beyond traditional boundaries.

Ultimately, Nathan's ambition and collaborative work style make him ideally suited to Qube Research and Technologies, where his technical skills and cultural alignment with soft skill importance can lead to a mutually beneficial engagement.