My journey towards a career in secondary Computer Science education began subtly in my own school days at Heartlands High School. I often found myself completing assigned maths and science work faster than my peers, naturally gravitating towards helping those around me to grasp challenging concepts. This innate desire to explain and foster understanding was also present as I helped my younger siblings grow and learn. This early inclination to teach and guide, coupled with a profound passion for Computer Science, has evolved into a clear ambition to inspire and empower the next generation.

My academic foundation is robust, with a First Class MEng in Computing from Imperial College London, complemented by strong GCSEs (5 A*s, 5 As) and A-Levels (A* A A B). During my final year at university, my involvement in the "Communicating Computer Science" course provided an early opportunity to teach independently. At Edmonton County School, this marked my first immersive experience within a classroom setting, and it was impactful. I was solely responsible for teaching Year 13 students, offering crucial support with coursework and delivering bespoke lessons before critical deadlines. I found great satisfaction in walking around, hearing student discussions, reading their facial expressions, seeing hands go up, and experiencing the immediate feedback loop that fosters genuine understanding. The open atmosphere for in-person questions and the palpable chemistry between teacher and students solidified my preference of formal in-person teaching over online tuition.

For the past three years, alongside my professional commitments, I have dedicated myself to private tutoring in Computer Science at both GCSE and A-Level. This role has provided invaluable insights into the diverse learning needs of young people and further refined my pedagogical approach. My professional life as a Software Engineer and Data Scientist has honed my problem-solving, analytical, and communication skills, providing me with a practical, real-world understanding of Computer Science principles. It is the immense personal satisfaction derived from translating these complex concepts into accessible knowledge, and mentoring young minds, that compels me to transition into a qualified educator.

The culmination of these experiences was a three-month, full-time placement at Holland Park School, where I had the privilege of teaching two Year 10 GCSE classes and one Year 12 A-Level class. This immersive experience, five days a week with three lessons daily, allowed me to take full ownership of the learning process. I meticulously prepared custom slides and learning materials, sourced and collated examination resources, and designed mock exams to rigorously prepare students for their end-of-year assessments. Beyond content delivery, I also conducted several after-school classes for eager students, introducing them to common software engineering practices such as version control, using cloud platforms, machine learning, prompt engineering and agile methodologies.

When teaching computational methods (OCR A Level 2.1 and 2.2.2), I integrated real-world examples to illustrate complex concepts. For instance, I explained that some problems, while theoretically solvable, face practical limitations due to current computing power, speed, or memory. I used examples like the intensive resource requirements for training large machine learning models, and how techniques like quantization are employed to make them more

feasible for everyday devices, even if full-scale computation remains impractical for personal computers. I also drew upon scenarios from my professional experience, such as identifying software performance bottlenecks in large web applications or recognizing data quality issues in customer analysis, to demonstrate how these problems are identified and solved using computational thinking and software solutions. Furthermore, I brought data mining to life with examples from online grocery businesses and social media insight generation.

Crucially, I managed classroom behaviour effectively. My ability to de-escalate challenging situations and engage with parents and fellow teachers to support student progress was a testament to my commitment and adaptability in a dynamic school environment. The overwhelmingly positive feedback from students, teachers, and parents underscored the significant impact I made on their learning journeys. My experience also extends to covering Year 11 classes prior to their GCSE exams, and multiple occasions teaching Year 7 and Year 8 students, which has equipped me with a comprehensive understanding of the Computer Science curriculum progression and the varying pedagogical approaches required for different age groups and abilities.

My own experience studying in a diverse state school in Haringey instilled a deep appreciation for education's power to shape lives, particularly for those from diverse or under-privileged backgrounds. I am passionate about leveraging my professional background to show students what is truly possible with Computer Science, offering realistic insights into diverse career paths and broadening their horizons. I believe every student deserves a mentor to guide and ignite curiosity. My teaching approach emphasizes flexibility and novel strategies to improve engagement and performance, adeptly tailoring lessons for diverse learners. For instance, I link complex A-Level algorithms to real-world optimization problems from software development, while for younger students, I use hands-on coding challenges to build foundational logic.

My MEng degree in Computing has instilled a rigorous problem-solving mindset, which I believe is essential for tackling the varied learning obstacles students encounter. I am adept at interpreting nonverbal cues from students, allowing me to identify challenges and adapt my teaching in real-time. My experience collaborating with parents and other teachers has also refined my communication skills, essential for fostering a supportive learning environment. I derive great satisfaction from witnessing students' academic progress, growing confidence and genuine comprehension of complex topics.

I am confident that my strong academic record, combined with extensive and impactful teaching experience across various age groups, makes me an ideal candidate for a PGCE Secondary: Computing with ICT programme. I am fully aware of the dedication and resilience required for this demanding course and am ready to embrace the challenges and opportunities it presents. My passion for Computer Science education is rooted in a desire to equip young people with critical skills for the future, to demystify complex concepts, and to foster a lifelong curiosity for the subject. I am eager to contribute to and learn from a vibrant academic community, ultimately striving to become an outstanding Computer Science teacher who empowers all students to reach their full potential.