

# JULIAN NGONG

Mathematics & Computer Science (MEng) graduate studies, University of Bristol, UK  
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## PROFILE

An enthusiastic and detail-oriented 4<sup>th</sup> year Mathematics and Computer Science Masters student capable of understanding new ideas and concepts swiftly. After completing multiple internships, I am now seeking a graduate opportunity in software engineering to complement my advanced programming knowledge whilst gaining relevant lifelong work-based skills.

## EDUCATION

SEPTEMBER 2019 – JUNE 2023

**Mathematics & Computer Science (MEng)**, University of Bristol

Grade (74%, First Class). Mathematics modules include Linear Algebra, Group Theory, Probability and Statistics. Computer Science modules included Programming Languages and Computation, Algorithms, Functional and Object-Oriented Programming, Applied Data Science, Machine Learning and Cryptology. Third year final dissertation (80%).

SEPTEMBER 2017 – JUNE 2019

**A Levels**, Hills Road Sixth Form College, Cambridge

4 A levels: Mathematics (A\*), Further Mathematics (A\*), Physics (A), Computer Science (A)

Additional Qualifications: Extended Project Qualification (A\*) (Full development of a 2D side scroller game.)

## EMPLOYMENT & WORK EXPERIENCE

SEPTEMBER 2020 – PRESENT

**Tutor**, MyTutor

**Bristol, UK**

- Provide weekly tuition to students with varied abilities on STEM subjects from GCSE to University.
- Ability to analyse a students' strengths, weaknesses, and preferred way of learning to assemble lesson plans and deliver unique and tailored tutoring, ensuring the highest chance of academic improvement.
- Ability to find multiple ways to explain key principles of each subject matter to students. This benefits the student while further improving my own knowledge and understanding of the subject in general.

JUNE 2022 – SEPTEMBER 2022

**Software Engineering Intern**, Capital One

**London, UK**

- Investigated a newly designed proprietary website bundler, a combination of 'Vite.js' and ESBuild, in order to validate any coding decisions made and create clear concise documentation to productionise the tool for use with other internal web teams. The tool had 'build times' 10x faster than their current Webpack solution.
- Using 'Node.js' to understand underlying web frameworks, such as the middleware pattern, in Express apps.
- Developing strong in-depth knowledge of the workflows of JavaScript module bundlers.
- Worked within an Agile team partaking and leading multiple standups, retrospectives, and sprint plannings.

JUNE 2021 – SEPTEMBER 2021

**Software Engineering Intern**, Capital One

**London, UK**

- Worked on the front-end of websites to build UI components, and on the back end using Amazon EC2 orchestration services to complete projects currently being used by employees and customers.
- Learning new programming languages including JavaScript, HTML and React whilst further improving my proficiency in Python by creating endpoints for the Developer API used in Capital One hackathons.
- Undertook courses on Amazon Web Services (AWS) to complete the AWS Certified Cloud Practitioner exam and gain the certification.

JULY 2019 – SEPTEMBER 2020

## Customer Advisor, Three UK

Cambridge/Bristol, UK

- Actively listening to all customer's queries and asking the most useful probing questions to ensure that vital information is collected from the customer to deliver an optimal customer service solution.

OCTOBER 2017 – APRIL 2019

## Customer Advisor (Computing Department), Currys and PC World

Cambridge, UK

- Working in a customer-facing environment and managing important legally compliant transactions.
- Working as part of a cohesive team helping other colleagues with their sales by utilising my approachable personality and effective communication skills to offer exceptional customer service.

## SKILLS

- **Programming Languages:** C, Python, Pascal, Haskell, C++, JavaScript, React, TypeScript, HTML, CSS and Java.
- **Mathematics:** Deep and extensive knowledge in mathematics which enhances my understanding of the foundations of programming, with the ability and analytical skills to create and provide refinements to algorithms, problem-solving, and debugging.
- **Leadership:** I am the course representative for Mathematics & Computer Science, which involves communicating with fellow students to gather any queries they have and putting them forward to the staff members in a confident and suitable manner to effect any necessary change.
- **Communication:** Excellent oral presentation skills due to constantly liaising with large numbers of new people. Conducting multiple seminars during my Capital One internship further developed my expertise in putting across essential information in a clear and confident manner.
- **Time Management:** My time and duty-conscious nature is key to my success, both in academic work and in my life of work. I can prioritise and effectively manage my ever-increasing workload and deliver to strict deadlines.
- **Software Services:** Proficient in GitHub, Git, Amazon Web Services, Docker, and VS Code.

## PROGRAMMING PROJECTS

- **Othello Board Game w/AI Implementation (Pascal):** Recreation of the traditional board game Othello using object-oriented programming with Pascal. This involved creating a GUI for the player to interact with and researching best Othello techniques, in order to implement an AI opponent for the player to play against which used game trees and the Minimax algorithm determined by devised heuristics.
- **Stock Market Simulator (Java, HTML, CSS):** Developed a stock market simulation game, primarily programmed in Java, for the Computer Science Society. It allowed players to go onto a website and compete against other players and programmed bots with a simulated news feed affecting the stocks. This involved using Spring Boot, Rest APIs, Java Script and databases.
- **Screen Time Effects on Children's Mental Health (Python):** Using a public data set of 15,000 entries containing information surveyed from children regarding mental health diagnoses and screen time habits to determine any relationships between the two. Utilised K-Nearest Neighbors imputation for missing data, visualization techniques such as t-SNE, and machine learning models from Support Vector Machines to recursive feature elimination.

## EXTRA CURRICULAR ACTIVITIES

- Started a technology-based YouTube channel where I reviewed new, innovative pieces of technology for companies by filming and editing footage for the public to make informed decisions on whether they should buy the products. This involved directly contacting big companies and marketing my capabilities.
- Keen lover of sports and the outdoors. Completed many major expeditions such as cycling from Cambridge to Land's End, climbing Ben Nevis, and cycling around Lake Garda. Member of the University of Bristol Afro-Caribbean Society football team.

References available upon request.