

Lloyd Morgan

Personal statement

As an MSc student in Synthetic Biology and Biotechnology at the University of Edinburgh, I am eager to apply my academic knowledge and laboratory skills in an industry role. My expertise in molecular biology, microbiology, and bioinformatics is complemented by hands-on experience with advanced techniques, including CRISPR genome editing and DNA assembly methods. My passion for tackling challenges such as antimicrobial resistance and my strong understanding of genetics equip me to contribute to innovative solutions in biotechnology.

Education

University of Edinburgh

(September 2024 – September 2025)

- Synthetic Biology and Biotechnology MSc
- Modules: Automation in Industry, Stem Cells in Industry, Industrial Biotechnology Principles, Tools for Synthetic Biology, Applications of Synthetic biology, Social Dimensions of Synthetic Biology, Industry and entrepreneurship, Biodesign for sustainability.
- Key Projects: Genetic circuit design for controlling microbial expression and optimisation of Golden Gate assembly for genetic library construction.

University of West England, Bristol

(September 2020 – May 2024)

- Biological sciences BSc (Hons) with foundation year – First Class Honours
- Dean's list candidate in my first year for achieving an aggregate mark of 70%
- Dissertation: Investigating Phage-Antibiotic combination therapy for combatting an MDR strain of *Acinetobacter baumannii*

Key skills

Lab skills:

- **Proficient in molecular biology techniques** including qPCR, CRISPR-Cas9 gene editing, plasmid design and construction, Golden Gate and Gibson assembly methods, and primer design.
- **Experienced in microbiology techniques** such as bacterial plating, aseptic culturing, and antibiotic susceptibility testing, with hands-on experience in isolating and identifying microbial strains.
- **Experienced in genetic analysis and molecular diagnostics:** using gel electrophoresis, DNA isolation, PCR amplification, and spectrophotometry to validate experimental results and analyse genetic constructs.

Analytical and Problem-solving Skills

- Strong understanding of statistical analysis and data interpretation, developed through coursework and research projects.

- Capable of applying analytical skills to real-world problems in synthetic biology and biotechnology.

Teamwork and communication

- Skilled collaborator in interdisciplinary teams, evidenced by successful completion of group projects, including designing genetic libraries and presenting research findings.
- Effective communicator with experience presenting complex scientific concepts to both academic and non-technical audiences.

IT proficiency

- Proficient in Microsoft Office Suite (Excel, Word, PowerPoint) with expertise in utilising Excel for complex data analysis and statistical calculations.
- **Experience in R, and Python** including data visualisation and statistical modelling.
- **Skilled in bioinformatics tools for molecular biology applications**, including Benchling (for plasmid design and sequence annotation), BLAST (for sequence alignment and analysis), and SnapGene (for DNA sequence visualisation and cloning)

Organisation and time management

- Highly organised, with the ability to prioritise tasks effectively to meet deadlines and manage academic commitments.
- Adaptable and quick to learn new roles, ensuring efficient engagement in diverse tasks.

Employment history

Bar staff for Bridgend Tennis, Squash, and Bowls Club

(June - September 2021)

Achievements and responsibilities:

- Delivered exceptional customer service in a fast-paced environment, demonstrating multitasking and organisational skills.
- Coordinated with team members to ensure smooth event operations, fostering strong communication skills.
- Developed the ability to thrive under pressure by multitasking during high-demand events, ensuring efficient service delivery and excellent customer satisfaction.

Volunteer for Alzheimer's Society

(June 2023 – August 2024)

Achievements and responsibilities:

- Facilitated Music sessions for dementia sufferers, fostering social engagement through music therapy.
- Enhanced interpersonal skills by engaging participants in empathetic conversations and ensuring their comfort during sessions.