Sam Beer

BA, Computer Science
Software Engineer

✉ Wimborne, BH21 5ET

📞 +44 7881 295389

@ sam.beer208@gmail.com

@ stb41@cantab.ac.uk

🌐 azoghal.github.io

in linkedin.com/in/sam-beer

github.com/azoghal

Programming

🐍	Python	5 Years
☕	Java	4 Years
C#	C#	3 Years
C++	C++	1 Year
🐫	OCaml	
JS	JS, TS	

Additional Skills

🔶	Git	6 Years
🐧	Linux	3 Years
	NumPy	3 Years
	Pandas	3 Years
📊	Matplotlib	3 Years
🔥	PyTorch	1 Year
🔺	CMake	1 Year
🔷	Cloud (GCP)	1 Year

References

Available on request.

Education

2019–22	**University of Cambridge**	Pembroke College

BA (Hons) 2:1, Computer Science

Graph Lenia, Dissertation   3rd Year

A Computational Biology project. Wrote and optimised a Python implementation of the *Lenia* cellular automaton to investigate the effect of noise and moving to a graph domain. Devised, implemented and used methods to quantify the effect of these changes upon pattern evolution.

Virtual Agronomist   2nd Year

Worked collaboratively for an industry client to build a chat bot using an augmented Haystack pipeline to answer natural language questions. Managed all contact between the client, group, and CS department.

2017–19	**A-Levels - A*A*A*A**	Bournemouth School

Maths, Computing, Physics, Further Maths

2012–17	**GCSEs - 11 graded A* or 9**, House Captain	Bournemouth School

Work Experience

2022–Present	**Co-Founder, Tech Lead**	Indigo Meet, Remote

Leading a non-profit effort to address the technological challenges faced by asylum seekers and refugees. Conducted market research, created and iterated upon requirement specifications. Researched required tools and APIs, interviewed and managed 2 volunteer developers and set up development environments and workflows for a small team. Gaining experience with cloud platforms by using GCP, and learning more about team management.

Summer 2022	**Software Engineer Internship**	Cisco Ensoft, Harpenden

Worked for 9 weeks on an operating system for high end routers. Set up a GitHub repository to manage and improve a data structure that should have been versioned separately from the operating system workspace. Planned and wrote software to automatically transfer data to the repository, validate it against the new specifications, and allow updates. Gained valuable experience writing, testing and documenting production Python code. Experienced strict git workflows for an extremely large code base, and agile software development.

Project Experience

2022-Present	**Bassoon**	github.com/Azoghal/Bassoon

Developed a statically-typed procedural programming language and compiler using C++ and the LLVM library to generate executables from Bassoon source code for many platforms. Implemented a lexer, parser, typechecker, and code generator. Managed the project and built the compiler and small test suite with CMake. Gained valuable experience with C++, language design and compiler construction.

2021–22	**Cricket Commentary Generation**	github.com/Azoghal/Markovian-Commentary

A personal NLP project using Python to build and use Markov models to simulate matches and generate ball by ball commentary. Used Monte Carlo search to make win predictions from any match state. Built a web scraper using Selenium and BeautifulSoup to gather training and evaluation data. Compared models output to evaluation data from real matches.

2022-Present	**CTFs**	

Regularly solving cryptography CTF challenges, participating in events.

2018-Present	**Game Jams**	azoghal.itch.io/

Used C# and Unity to create games for jams such as Ludum Dare.

Interests

Cricket	**Cambridge University Blue**	2022

Pembroke College Cricket Club Captain   2020–22

Organised and managed budget for events and matches.