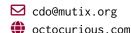# Christina O'Donnell

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🌐 octocurious.com

Professional Experience

2023 – ···· ○ **Computer Science Tutor** Octocurious
Specializing in teaching Computer Architecture, and Systems Programming to undergraduates.

2017 – 2023 ○ **Software Developer** Cyberscience Corporation, Hoddesdon.
Contributed to modernizing a data analytics program, focusing on enhancing functionality and user interaction.

Education

2014 – 2017 ○ **BA, University of Oxford** Mathematics and Computer Science
First Class

2015 ○ **Donald Michie Exhibitioner** (Balliol College, Oxford) – Award for excellence in Computer Science

Skills

Languages ○ Native fluency in English.

Technologies ○ **Languages**: C++, C, Haskell, Python, SQL, HTML, CSS, POSIX Shell, JavaScript, Go
Hosting & configuration: Linux, Guix, Postfix, Dovecot, NFTables, Certbot, Nginx

Teaching ○ **Clarity**: Able to explain complex topics clearly.
Inclusive teaching style: Able to teach a diverse range of computing subjects to students of different abilities.

Soft skills ○ Independent research, collaboration, marketing, creative problem solving, communication

Projects

○ **Semantic Graphs:** Conducting research on 'Semantic Graphs' as a meta-theory of language, expressions, and structure.

○ **Guix Contributor:** Active contributor to Guix– the project to build a fully functional package manger and reproducible operating system in Scheme.

○ **Interactive Quantum Tunnelling Simulation:** Created a simulation using Processing JS, garnering 627 votes on Reddit.

○ **Blog:** Maintainer a blog with regular posting of technical content.

○ **System hosting:** Running and maintaining multiple Linux servers, self hosting websites, GitLab, email, DNS, Discourse, while security policy like updates, logging, and firewalls.

○ **Transient-Help Tooltip System:** Implemented a two-way communication channel and consistent tooltip appearance across web and Windows clients.

Projects (continued)

- ○ **Geographical Plotting System Maintenance:** Responsible for maintaining and debugging a JavaScript-based geographical plotting system.
- ○ **Text Editor:** Developed a text editor for in C, using a gap buffer for efficient text storage and manipulation. GitHub Link
- ○ **2D Physics Engine:** Authored a 2D physics engine from scratch in C++, featuring collision detection, multiple collision points per object pair, and joint support.

References

Available on Request