Zeno de Angeli

London, United Kingdom | zenodea@outlook.com | +41 78 304 97 78 | zenodea.com |

Education

University College London (UCL) London, United Kingdom
Master of Science in Information Security *September 2024 - September 2025*
- Dissertation: **Dual-Mode DAG-based Consensus Protocol**
- Core modules: Cryptography, Cryptocurrencies, Privacy Enhancing Technologies

University of Sussex Brighton, United Kingdom
Bachelor of Science in Computer Science *September 2019 - May 2023*
- Dissertation: **ML-Based COVID-19 Analysis on Government Policy Effectiveness**
- Core modules: Computer Architecture, Data Science, Network Security

Work Experience

Full Stack Developer Lugano, Switzerland
NorthsouthUX *May 2023 - December 2023*
- Built responsive web applications using **React** and **Node.js**, implementing features from Figma designs
- Translated client requirements into technical specifications through stakeholder meetings and iterative feedback

Teaching Assistant Brighton, United Kingdom
University of Sussex *September 2022 - January 2023*
- Led weekly lab sessions for 20+ students covering compiler theory, lexical analysis, parsing, and code generation
- Provided one-on-one support for students debugging compiler implementations in **Java/ANTLR**

Research Assistant Brighton, United Kingdom
University of Sussex *May 2022 - August 2022*
- Implemented OCR algorithms using **Python** and **OpenCV** to extract text from academic documents
- Tested and refined computer vision models with the help of industry partner **Foxit**

Projects

Dual-Mode DAG-based Consensus Protocol March 2025 - September 2025
Information Security MSc Dissertation/Thesis
- Developed hybrid DAG-based consensus algorithm in Rust combining Mysticeti with other state-of-the-art protocols
- Created comprehensive test suites for complex network simulations to validate protocol behaviour
- Optimised transaction processing to handle 100K+ TPS with sub-second finality in collaboration with **Mysten Labs**

Machine Learning-Based COVID-19 Policy Analysis September 2022 - May 2023
Computer Science BSc Dissertation/Thesis
- Scraped and compiled COVID-19 datasets from government sources
- Implemented SIRD epidemiological model with MCMC parameter estimation using NumPy and scikit-learn
- Visualized policy impacts on R_0 values using Matplotlib, demonstrating lockdown effectiveness across countries

Custom Functional Language Compiler for RISC-V Architecture September 2021 - December 2022
Computer Science BSc - Compiler Architecture Project
- Built compiler in Java for functional language with CFG parser targeting RISC-V assembly
- Implemented RISC-V code generation for arithmetic/logical operations, branches, and function calling conventions
- Generated RISC-V assembly with register allocation, stack frame management, and control flow translation

Technical Skills

Programming Languages: Rust, Java, Python, C, JavaScript, PHP, Haskell

Frameworks & Libraries: React, Node.js, NumPy, Pandas, Nix, LaTeX

Development Infrastructure: Git, Linux/Unix, Docker, PostgreSQL, SQLite, Vim/Neovim

Language Proficiency

Italian: Native proficiency

English: Native proficiency

German: Basic proficiency

Certificates

National Cyber Security Center UK Certificate
UCL - Cybersecurity Management & Governance

Junior Research Associate Certificate
University of Sussex - Computer Vision