

EDUCATION

Chalmers University of Technology Göteborg, Sweden
PhD - Countering bias in AI methods in the social sciences September 2023 – present

The goal of my PhD is to develop and apply methods that make use of text data for more accurate and robust estimates of causal effects in the social sciences.

Chalmers University of Technology Göteborg, Sweden
MSc Complex Adaptive Systems August 2021 – August 2023

- **Masters Project:** *CATE Trees*. I developed various methods to use decision trees and independence measures to estimate treatment effects from observational data. Supervised by Dr. Fredrik Johansson.

University of Bristol Bristol, England
MEng Computer Science and Electronics 2014 – 2018
First Class Honours

- **Masters Project:** *Sorting Data Structures Generically*. I developed a technique based on the paper Generic Parallel Functional Programming to generate sorting algorithms for arbitrary algebraic data structures at compile-time using GHC Generics and the Haskell type system. Supervised by Nicolas Wu.
- **Bachelor Project:** I built a collision detection and avoidance system for an autonomous flying hexacopter using stereo vision. All computation was done on a Jetson TX1 GPU mounted on the drone. The results of this project were published at IEEE IST 2017.
Publication: *Real-time stereo vision for collision detection on autonomous UAVs*.

United World College of the Atlantic St. Donat's Castle, Wales
International Baccalaureate 2012 – 2014
Total Score: 41/45
Subjects: Maths, Further Maths and Physics (Higher Level). English Literature, French and Peace and Conflict (Standard Level).

WORK EXPERIENCE

RELEX Solutions Helsinki, Finland
Software Developer November 2018 – July 2021

- Helped design and test a reliable Nix-based deployment system for the company's main product
- Implemented most of the backend for said deployment system in Haskell
- Helped maintain and improve the legacy deployment system
- Provided support for other teams for both deployment systems
- Received Nix and Kubernetes training

International Conference on Functional Programming Oxford, England
Student Volunteer September, 2017

Myrtle Software Cambridge, England
Junior Software Developer, Intern June – September, 2017

- Designed and built a nightly test framework in Haskell.
- Used Cloud Haskell for distributed computing.
- Completed a crash course in the CLaSH hardware library.

University of Bristol
Junior Software Developer, Intern

Bristol, England
June – August, 2016

Atlantic Outdoor Center
Outdoor Instructor

St. Donat's Castle, England
June – July 2014

RNLI Lifeguards
Beach Lifeguard

Vale of Glamorgan, England
June – July 2013

SKILLS

- Programming Languages
 - Haskell, Python (advanced)
 - Matlab, Elm (intermediate)
 - Some experience with Typescript, Java, C
- Languages
 - English (fluently spoken and written)
 - Italian (fluently spoken and written)
 - French (fluently spoken with limited written skills)
- Linux Administration
- Nix and NixOS

OTHER INTERESTS

Swing and salsa dancing, reading, a cappella singing, songwriting, fitness and calisthenics.

REFERENCES

- Bryan Richter, Haskell Foundation
b@chreekat.net
[Linkedin](#)
- Dr. Nicolas Wu, Department of Computing, Imperial College London
n.wu@imperial.ac.uk
<http://www.zenzike.com>