

# Alice Hamberger

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Born: 30 July 2000 in Berlin, Germany

## EDUCATION

### UVA, AMSTERDAM

UNIVERSITEIT VAN AMSTERDAM

MSC SOFTWARE ENGINEERING

Expected Grad. June 2023

### AUC, AMSTERDAM

AMSTERDAM UNIVERSITY COLLEGE

HONORS BS IN LIBERAL ARTS AND

SCIENCES

Grad. June 2022

GPA: 3.25

### BBIS, BERLIN

BERLIN BRANDENBURG

INTERNATIONAL SCHOOL

Grad. May 2018

## COURSEWORK

Requirements Engineering

Software Specification, Verification and Testing

Model Based Design of Cyberphysical Systems

Software Evolution

DevOps and Cloudbased Software

Software Process

Text Mining

Quantum Information & Communication

Machine Learning

Advanced Programming

Data Structures & Algorithms

Philosophical Logic

## SKILLS

### PROGRAMMING

LANGUAGES:

Python • Haskell • Lisp • HDL •

TOOLS:

Git •  $\text{\LaTeX}$  • Emacs

### LANGUAGES

FLUENT:

English, German

INTERMEDIATE:

Dutch, French

## PROJECTS

### VISUAL MODELLING | MS THESIS AT AXINI

In progress. RQ: Effectively Visualizing a DSL.

### HAT GMM: HYBRID ADVERSARIAL-THRESHOLD GAUSSIAN MIXTURE MODEL FOR SUBDOMAIN EXTRACTION | BS THESIS AT

MACHINE LEARNING PROGRAMS

Training multivariate gaussian mixture models to augment a smaller dataset with datapoints from a larger dataset.

### A SENTIMENT ANALYSIS OF GENDER INCLUSIVE HEADLINES | TEXT MINING

Training recurrent neural networks to analyze how gendered words are featured newspapers headlines.

### LATTICE-BASED QUANTUM CRYPTOGRAPHY

| QUANTUM INFORMATION & QUANTUM COMMUNICATION

Analyzing lattice-based scheme in quantum cryptography to fend of cyber attacks.

### SIRS COVID-19 MODEL | MODELLING REAL WORLD PROBLEMS

Modelling the spread of COVID-19 as a contact network using SIRS as a framework and the Haslemere data set. Analyzing the effect of "contact bubble" size on the spread of COVID-19.

## EXPERIENCE

### MACHINE LEARNING PROGRAMS | DATA SCIENTIST INTERN

Jan 2022 – Feb 2022 | Amsterdam

Worked on & wrote narratives about:

- machine learning algorithms for data analysis
- creating mathematical functions for risk analysis of data re-identification

### KABOOM ANIMATION FILM FESTIVAL

| FLOOR & WEBSITE MANAGER

Feb 2021 – April 2022 | Amsterdam, Netherlands

- updating and improving previous website content
- managing auditoriums during the festival
- managing volunteer's duties during the festival

### INTERNATIONAL DOCUMENTARY FILMFESTIVAL AMSTERDAM

| LOCATION MANAGER

November 2022 | Amsterdam, Netherlands

- contact with suppliers
- volunteer management

### BERLIN BRANDENBURG INTERNATIONAL SCHOOL | TUTOR

Oct 2016 – Feb 2018 | Berlin, Germany

Tutoring International Baccalaureate Diploma Programme (IBDP):

- Mathematics & Chemistry (Higher Level)