

# Claas A. Voelcker

MASTER STUDENT IN COMPUTER SCIENCE

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## Education

### Technische Universität Darmstadt

Darmstadt, Germany

M.Sc. IN COMPUTER SCIENCE

since 04/2018

- thesis topic: Object segmentation and detection for reinforcement learning applications
- thesis supervisors: Karl Stelzner, Prof. Kristian Kersting
- notable courses: "Deep generative models", "Deep Learning: Methods & Architectures", "Reinforcement Learning"
- current GPA: 3.9

### Technische Universität Darmstadt

Darmstadt, Germany

B.Sc. IN COMPUTER SCIENCE

10/2014 - 04/2018

- thesis topic: DeepNotebooks – Interactive data analysis using Sum-Product Networks
- thesis supervisor: Prof. Kristian Kersting
- graduated with honors, GPA 3.75
- notable courses: "Introduction to AI", "Statistical Machine Learning", "Data Science Practical Lab"

### Eichendorffschule

Kelkheim, Germany

ALLGEMEINE HOCHSCHULREIFE

June 2013

- German final grade: 1.0
- stayed at the German School New York from 06/06 - 02/08

## Skills

**Programming** Python, Java, Scala, LaTeX

**Machine Learning** Pytorch, Tensorflow, Numpy, Pandas

**Languages** German (fluent), English (fluent), French, Latin, Tagalog/Filipino

## Jobs

### TU Darmstadt - Chair of Artificial Intelligence and Machine Learning

Darmstadt, Germany

RESEARCH ASSISTANT

since 10/18

- developer of the DeepNotebook framework for interactive data exploration
- data analysis on health care data to predict heart attack risk in ICU patients (in cooperation with UKE Hamburg)

### TU Darmstadt - Department of Computer Science

Darmstadt, Germany

TEACHING ASSISTANT

10/15 - 10/18

- tutor for the courses "Introduction to computer science", "Parallel programming", "Propositional and first-order logic"
- supervision and coaching of student software development teams

### Security Research Labs

Berlin, Germany

RESEARCH INTERNSHIP

08/16

- implementation of a remote execution API for automatic pen testing
- data analysis on large scale phishing campaign data to determine staff training strategies

### Deutsche Bank AG

Eschborn, Germany

JUNIOR PROJECT MANAGEMENT CONSULTANT

01/15 - 03/16

- technical implementation and supervision of the "Roadshow Cyber Security Awareness" campaign presented in Berlin, London, Singapore and New York

## Extracurricular Activity

### Conference of Aspiring Students in Tech – Rhein-Main

Darmstadt, Germany

ORGANIZING COMMITTEE

06/18 - 03/19

- part of the organizing committee for the first CASTrm, a conference targeted at students aspiring to become researchers
- helped to write prize winning concept
- in charge of coordination for the program and the diversity team

## TU Darmstadt

UNIVERSITY SENATE COMMITTEE ON STUDIES AND TEACHING

- student representative on the board for studies and teaching
- mainly responsible for reviewing the study plans of the departments

## Departement of Computer Science, TU Darmstadt

BOARD OF THE FACULTY OF COMPUTER SCIENCE

- elected student member for the faculty board
- member of several professorial appointment commissions

## Departement of Computer Science, TU Darmstadt

FACULTY STUDENT ASSOCIATION

- member of the student council, working on teaching evaluation, the university's senate committee for studies and first semester introduction; member and organizer of the Conference of German Computer Science Students

## Diocese of Alaminos

INTERNATIONAL VOLUNTEER SERVICE

- international volunteer of the diocese of Limburg assigned to the diocese of Alaminos, Pangasinan; working with disabled children and the elderly

## Awards

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### Deutschlandstipendium

AWARDED BY TU DARMSTADT

- scholarship awarded to 1% of students for academic excellence

### Abiturpreis

AWARDED BY THE GERMAN ASSOCIATION FOR MATHEMATICS

- award for achieving the highest possible grade in the final mathematics exam in high school

## Writing

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### Structured Object-Aware Physics Prediction for Video Modeling and Planning

KOSSEN, J., STELZNER, K., HUSSING, M., VOELCKER, C., & KERSTING, K.

- paper on generative scene models for physical systems from images

### DeepNotebooks: Deep Probabilistic Models Construct PythonNotebooks for Reporting Datasets

VOELCKER, C., MOLINA, A., NEUMANN, J., WESTERMANN, D., & KERSTING, K.

- paper on automatic data analysis using sum product networks
- published at the Automatic Data Science Workshop, cohosted with ECML/PKDD 2019

## Talks

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### DeepNotebooks

SPEAKER

- contributed talk on the DeepNotebooks framework for exploratory data analysis

### Lecture on Variational Autoencoders

GUEST LECTURER

- invited guest lecturer during the summer term iteration of Deep Generative Models

### What is "fair"? - Tackling challenges in modern AI

SPEAKER

- contributed talk on fairness and biases in AI at the Meta Rhein Main Chaos Days

Darmstadt, Germany

10/16 - 10/18

Darmstadt, Germany

10/2016 - 10/17, 10/18 - 10/19

Darmstadt, Germany

since 10/15

Alaminos, Philippines

08/13 - 12/13

under review, preprint available

ECML/PKDD - ADS workshop 2019

ECML/PKDD - ADS workshop 2019

Deep Generative Models 2019, TU Darmstadt

MRMCD 2018, Darmstadt