

David Simon Tetrushvili

POSTGRADUATE COMPUTER SCIENCE STUDENT

Zurich, Switzerland. • Berlin, Germany.

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Education

Swiss Federal Institute of Technology (ETH Zurich)

Zurich, Switzerland

MASTER OF SCIENCE IN COMPUTER SCIENCE

Sept. 2020 — Present

• Relevant courses:

Game Programming Lab (C#/.NET) • Advanced Machine Learning • Computer Vision • 3D Vision
Physically-based Simulation in Computer Graphics (C++) • Machine Perception

King's College London — University of London

London, UK

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (WITH ARTIFICIAL INTELLIGENCE) (HONS.)

Sept. 2017 — Aug. 2020

• **First-class degree. (GPA: 86%)**

• Relevant modules include:

Information Security • Internet Systems [96% (Top mark in class)] • Database Systems (MySQL) [90%]
Software Engineering Group Project [Major Project: 91%, Written Examination: 92% (Top mark in class)]
Programming Practice and Applications (Java) [96%], Practical Experiences of Programming (C++/Scala) [91%],
Introduction to Software Engineering [90%], Operating Systems and Concurrency [73%],

Berlin International School — Private Kant-Schule

Berlin, Germany

INTERNATIONAL BACCALAUREATE DIPLOMA

Sept. 2015 — May 2017

• **Overall 42/45 points**, including **6/7 points** in Higher Level Mathematics.

INTERNATIONAL-GCSE

Sept. 2013 — May 2015

• 10 IGCSEs with eight being A* or A, including A*s in Mathematics, Physics, and ICT.

Experience

Mobile App Developer & Database Engineer

London, UK

GUY'S AND ST. THOMAS' HOSPITAL NHS TRUST

Feb. — Mar. 2019

- In a team of eight, I developed a Doctor-Patient communication and medical test compliance cross-platform mobile app called **"Prep."**
- I designed and implemented the app's UI with focus on accessibility, utilizing Google's Flutter framework. • I designed and implemented the back-end system with emphasis on privacy, data leak prevention, and scalability using Google's NoSQL Firebase • I managed and maintained the project's Git history
- I created and narrated a screencast presenting the final application.
- Our solution has been shortlisted for funding.

Projects

Seth's PyraMall — A Competitive Couch Platformer

Zurich, Switzerland

GAME DEVELOPER/DESIGNER, GIT MASTER, ASSET CREATION

Feb. 2022 – May. 2022

- As a part of the Game Technology Center's Game Programming Lab, in a team of six, I developed a 2D retro-style platformer game using C#, .NET, and the Monogame framework.
- As the co-producer, I managed the team's responsibilities, maintained the project's issue log, as well as the project's Git etiquette and history.
- As a developer, I developed the character controller, contributed to the sound-effect system and the menu GUI system.
- I learned how to apply C# and .NET during the project. How to apply OOP design-patterns in the language, as well as how to keep a clean and well-documented codebase.
- The final game was presented to an audience of c. 200, and was awarded the Jury Award from Studio Gobo.

Tool for Analyzing Projects and Resource Allocation Trends

Zurich, Switzerland

DEVELOPER

Sept. 2021 – Jan. 2022

- As a part of the Hack4Good program, in a team of four, I developed an NLP analysis package for Helvetas to help the company better understand the distribution of their decentralized international projects.
- I developed and tested NLP models for the analysis, implemented the package's business logic and partly designed its web-based UI. I used Docker to share the prototype with the company.
- The package allows the user to analyze a dataset of projects, classify them into areas of development, and identify trends appearing in their descriptions and outcomes to better allocate resources.

Clim-EX: The Climate Animation Explorer

Oxford, UK

GRAPHIC AND UI/UX DESIGNER, FRONTEND DEVELOPER

Nov. 2019

- In a team of four, I submitted to the [Oxford University Hackathon 2019](#) with the goal to create a project promoting the discussion and exploration of climate change.
- I acted as the designer and frontend developer; roles that were crucial to the project's success due to its reliance on visual appeal.
- Our submission was one of the lead contenders to the "Hacker's Choice" award at the hackathon.

Solved-AF: Argumentation Framework Solver and "SAF-link" API

London, UK

DESIGNER AND PROGRAMMER

Oct. 2019 — Aug. 2020

- I designed and developed an [Argumentation Framework](#) solver for non-monotonic reasoning as part of my Bachelor's Thesis with the goal of producing a solver for educational and exploratory purposes.
- To aid in the exploratory role, I developed a REST API prototype which enables web clients to use the rich the plethora of existing Argumentation Framework solvers bypassing the knowledge barrier to use.
- The thesis achieved a first-class mark, in part due to the implementation.

Skills

Languages	English, German, Russian.
Programming	Python, C/C++, C#, Go, Java.
Machine Learning	PyTorch, NumPy, Pandas, SciPy, Matplotlib, etc.
Systems	Linux, Docker, SSH/Remote Access, Zsh/Bash scripting & automation, Git & GitHub/GitLab.
Tools	(Microsoft) Office Suite, IaaS (Digital Ocean, Vast.ai), LaTeX.

Awards

2022 **Studio Gobo's Jury Award**, Game Programming Laboratory, ETH Zurich

Zurich, Switzerland

2020 **Nomination**, Informatics Outstanding Teaching Award, KCL Informatics Department

London, UK

Extracurricular Activity & Volunteering

ETH Zurich Student Project House

Zurich, Switzerland

MAKERSPACE MANAGER

April. 2022 — Present

- I volunteer as a makerspace manager at the Student Project House at ETH Zurich.
- My responsibilities include giving introductory lectures/workshop on the in-house machinery and equipment, giving general introductions to the makerspace, supervising the makerspace and manning the counter during open-hours.

KCL Informatics and Engineering Teaching Assistant Liaison Committee

London, UK

MEMBER

Jan. — Aug. 2020

- I acted as a contact point to the TA community in case of concerns with module leaders and TA-related procedures.

KCL Informatics and Engineering Student-Staff Liaison Committee

TEMPORARY MEMBER/ACTIVE PARTICIPANT

Dec. 2019

- I volunteered time to raise and discuss possible solutions to student concerns about the KCL 'Artificial Intelligence Planning' module with both the administration of the faculty and the module leaders Dr Stefan Edelkamp & Dr Daniele Magazzeni as a member of the student body.

Modern Language Center at King's College London

GERMAN AND RUSSIAN LANGUAGE TUTOR

Apr. — Aug. 2019

- I volunteered time to run speaking practice sessions with students at the university and persons of the public.
- I evaluated and gave feedback on the students' use of the language and lexicon ultimately to help them express themselves in the language.
- I helped students build confidence in speaking the language in a safe environment.

Beginner's Programming and Game Development Workshop

Berlin, Germany

WORKSHOP LEADER AND ORGANIZER

May. — Jul. 2017

- I founded and launched an after-school beginner's programming workshop after learning that the school did not offer adequate education in the topic 'due to low demand.'
- I thought the basics of programming to a class of c. 30 students of mixed ages using Python 3 and the 2D game engine Game Maker Studio.
- This effort was acknowledged by the school and the administration, and was noted in that year's yearbook.