

Tomas Petricek – Teaching Report

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Student Supervision

Doctoral Students

- **Jan Liam Verter** (PhD Student), Charles University, 2024 – present
Research topic [Semantics Engineering with Concrete Syntax and Theorem Proving](#).
- **Joel Jakubovic** (PhD Student), University of Kent, 2019 – 2023
Thesis [Achieving Self-Sustainability in Interactive Graphical Programming Systems](#). Graduated in 2023.

Internships

- **Nour Boulahcen** (Undergraduate Internship), University of Kent, May 2019 – June 2019
Design and development of type provider for graph databases.
- **Mariana Marasoiu, Pablo León-Villagrà, Sarwar Islam** (Research Internship), The Alan Turing Institute, 2017
Tools for data journalism with [The Bureau of Investigative Journalism](#), resulting in two workshop papers.

Supervised Theses

Since joining Charles University in 2022, I supervised 13 Bachelor's theses (10 defended) and 2 Master's theses (2 defended). At University of Kent, I supervised students for a range of final year projects including 4 students in [Year in Computing Project \(BSc\)](#), 25+ students for [Group Project \(BSc\)](#) and 10 students for [Project and Dissertation \(MSc\)](#). I also supervised 3 final-year [Part II dissertations](#) at University of Cambridge.

- [Interactive Pandemic Simulation to Encourage Critical Thinking](#) (ongoing), [BSc thesis](#), Sára Goldscheiderová
- [Data-driven Low-code Programming System](#) (ongoing), [BSc thesis](#), Jaroslav Švarc
- [Reconstructing the Boxer programming system for the web](#) (ongoing), [BSc thesis](#), Jan Markvart
- [Type Providers for TypeScript](#) (defended 2024), [MSc thesis](#), Ondřej Roztočil
- [Reconstructing the Pygmalion Programming Environment](#) (defended 2024), [BSc thesis](#), Adrián Habušta
- [Query Language for Relational Databases](#) (defended 2024), [BSc thesis](#), David Koňářík
- [Design of LLM Prompts for Iterative Data Exploration](#) (defended 2024), [BSc thesis](#), Mikoláš Fromm
- [Combining Effects with Dependent Types](#) (defended 2024), [BSc thesis](#), Maya Mückenschnabel
- [AgentLang - Programming Language for Agent-based Modeling](#) (defended 2024), [BSc thesis](#), Tomáš Boďa
- [Abstract Interpretation of pandas](#) (defended 2024), [BSc thesis](#), Jan Hrubý
- [Functional Reactive Programming for Data Binding in C#](#) (defended 2013), [BSc thesis](#), D. Barker, Cambridge
- [Refactoring Tool for F#](#) (defended 2013), [BSc thesis](#), Lewis Brown, University of Cambridge
- [Type-safe Multilanguage Programming](#) (defended 2013), [BSc thesis](#), Eduardo Muñoz, University of Cambridge
- [.NET Library for the MediaWiki API](#) (defended 2013), [BSc thesis](#), Petr Onderka
- [IntelliSense Integration for Coq Theorem Prover](#) (defended 2012), [MSc thesis](#), Adam Abonyi

Recent Teaching

Year 2024/25

- [Programming Language Design \(NPRG075\)](#), Winter 2024/25, Charles University

Year 2023/24

- [Write Your Own Tiny Programming Systems \(NPRG077\)](#), Winter 2023/24, Charles University
- [Advanced C# Programming \(NPRG038\)](#), Summer 2023/24, Charles University, [Course lab supervisor](#)

Year 2022/23

- **Programming Language Design (NPRG075)**, Winter 2022/23, Charles University
- **Introduction to Linux (NSWI177)**, Summer 2022/23, Charles University, Course lab supervisor

Year 2021/22

- **Software Development (CO559), BSc**, Spring 2021/22, University of Kent
- **Software Engineering (CO886), MSc**, Spring 2021/22, University of Kent
- **Group Project (CO600), BSc**, 2021/22, University of Kent, Final year project supervision
- **Project and Dissertation (CO880), MSc**, Spring 2021/22, University of Kent, Thesis supervision
- **Project Research (CO880), MSc**, Autumn 2021/22, University of Kent, Project supervision

Year 2020/21

- **Software Engineering (CO886), MSc**, Spring 2020/21, University of Kent

Year 2019/20

- **Software Engineering (CO886), MSc**, Spring 2019/20, University of Kent
- **Algorithms, Correctness and Efficiency (CO518), BSc**, Autumn 2019/20, University of Kent
- **Computer Interaction and User Experience (CO582), BSc**, Autumn 2019/20, University of Kent
- **Group Project (CO600), BSc**, 2019/20, University of Kent, Final year project supervision
- **Year in Computing Project (CO580), BSc**, Spring 2019/20, University of Kent, Project supervision
- **Project and Dissertation (CO880), MSc**, Spring 2019/20, University of Kent, Thesis supervision
- **Project Research (CO880), MSc**, Autumn 2019/20, University of Kent, Project supervision

Year 2018/19

- **Software Engineering (CO886), MSc**, Spring 2018/19, University of Kent
- **Computer Interaction and User Experience (CO582), BSc**, Autumn 2018/19, University of Kent
- **Group Project (CO600), BSc**, 2018/19, University of Kent, Final year project supervision
- **Year in Computing Project (CO580), BSc**, Spring 2018/19, University of Kent, Project supervision
- **Project and Dissertation (CO880), MSc**, Spring 2018/19, University of Kent, Thesis supervision
- **Project Research (CO880), MSc**, Autumn 2018/19, University of Kent, Project supervision

Committee Membership

- **Committee for Final State Exams in Master Study Programs**, Charles University, 2024 – present
Nominated in September 2024. Awaiting to be approved in 2024/25.
- **Committee for Final State Exams in Bachelor Study Programs**, Charles University, 2024 – present
Nominated in September 2024. Awaiting to be approved in 2024/25.
- **Academic Misconduct Panel Member**, University of Kent, 2021 – 2022
Reviewed 30+ reports of plagiarism and other academic misconduct.
- **Year in Computing Review Committee Chair**, University of Kent, 2021
Leading a review of programme teaching structure and implemented changes for 2022/23.
- **Year in Computing Admissions Officer**, University of Kent, 2020 – 2022
Interviewed 100+ applicants for a programme offered to non-computer science students.