6400 Sønderborg

Lars Vadgaard

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Employment

PhD Research Fellow

University of Oslo

Fall 2023 – Summer 2024

- Conducted research on programming languages and their energy consumption.
- Researched, designed, and implemented domain-specific languages for IT security infrastructures.
- Decided to pursue other career opportunities after a year in the program.

Assistant Lecturer

University of Oslo

Fall 2023 - Summer 2024

- Delivered lectures on the formalization and implementation of programming languages.
- Formulated exercises, assignments, and home exams relating to software engineering and compilers.

Student Software Developer

Prolog Development Center

Winter 2020

- Worked on a custom Batch script for containerizing large test builds.
- Implemented tests for the system in Prolog.

Teaching Assistant

University of Copenhagen

Fall 2017 – Present

• Courses: Computer Systems and Networks; Formal Logics; Implementation of Programming Languages; Advanced Algorithms and Data Structures; Advanced Programming; Computability and Complexity.

Education

Copenhagen

University of Copenhagen

Fall 2018 – Summer 2023

- M.Sc. in Computer Science, Summer 2023.
- B.Sc. in Computer Science, Summer 2018.
- Graduate Coursework: Advanced Programming, Programming Language Theory; Computer Architecture; Algorithms and Data Structures; Artificial Intelligence; Computability and Complexity; Computer Security.
- Undergraduate Coursework: Programming; Compilers; Operating Systems; Databases; Algorithms; Computer Architecture; Networks; Data Science; Formal Logic; Discrete Mathematics.

Technical Experience

Projects

- Formalization and Documentation of P3KI Core (2023). Thorough documentation and formalization of the proprietary (PKI-based) trust management system by P3KI GmbH and its low-level scripting language.
- The HTPL Language (2023). High-level domain-specific language for the aforementioned trust management system, with an online playground for demonstration. Haskell, JavaScript, HTML, CSS
- Online DCA Tool (2020). Small platform with around a hundred users using Kraken's API for placing regular and customizable orders for crypto currency. PHP, JavaScript, HTML, CSS, MySQL
- The RL and SRL Reversible Languages (2018). Two reversible programming languages, one structured and one unstructured, with an inverter for each and a translator between them, along with an online playground for demonstration. Haskell, JavaScript, HTML, CSS
- Video Game Plugin (2022). Plugin for a popular video game with WAV file reader and audio engine. C++

Languages and Technologies

- C; C++; Python; C#.NET; F#.NET; Haskell; Java; PHP; JavaScript
- Linux; Windows; (Neo) Vim; Visual Studio; Git; CLI; MTFX; SQL

Spoken Languages

• Danish; English; German