

John Litborn

john.litborn@pm.me • Linköping, Sweden

Experience

Education Group for Programming and Programming Didactics

Linköping University

Amanuensis, Course Assistant, Head Assistant

2013 – 2017

- Led lessons and lab sessions, advised on projects, and graded hand-ins and exams
- Taught introductory courses in Python, C++, Ada, and Matlab, and advanced courses in C++ STL, Git, Object-Oriented programming and unit testing
- Performed light administrative and managerial duties for students and other assistants
- Improved tooling and workflow used by assistants

Division for Artificial Intelligence & Integrated Computer Systems

Linköping University

Course Developer, Software Developer

Summer of 2014 & 2015

https://github.com/h00701350103/XPilot-AI_LiU_fork

Python, C, HTML

- Overhauled assignments, improved instructions, and documentation
- Added features and fixed bugs in the interfaces between the C game client, the injection code used to run a game client automatically, and the Python API used by students
- Changed server-client netcode to send extra data, offloading and improving the client-side AI API

Ericsson, HiQ

Linköping

IT Consultant

Mar – Oct 2017

- Updated 4G base-station unit tests written in Erlang to work in a virtualized environment
 - Supported team members with core Linux and Git skills
 - Wrote automation scripts in Python & shell
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Education

Linköping University, Faculty of Science and Engineering

2012 – 2014, 2020 – 2021

Computer Engineering

120 Credits

- 2/3 of credits are in programming in a diverse set of languages, with a focus on algorithm construction, optimization, low-level code, and hardware. 1/3 of credits in math courses
 - My 2nd year I won a programming competition in a course, writing a sorting algorithm in microcode for a low-level simulated computer. It beat the professors record, and outclassed the standing student record
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Personal Project Highlights

Necro Score Bot

2015 – present

https://github.com/h00701350103/necro_score_bot

Python, 1500 lines of code

- Pulls leaderboard updates from the Steam API for the indie rhythm roguelike game Crypt of the Necrodancer, posting notable scores to Twitter and/or Discord
- Tags players and detects cheated or bugged scores, notifying the developers
- Has thorough error handling, a config file and command-line flags, and is modular and multithreaded

Seat Exchange Bot

May – June 2019

https://github.com/h00701350103/seat_exchange

Python, 3500 lines of code

- Implements an adaptation of a game from a Korean game show, The Genius
 - Supports 40 different commands, varying player counts, bot players, simultaneous games, and permissions
 - Adheres to PEP coding standards and is Object-Oriented, modular, and statically typed
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Core Technical Skills

Languages: Python, C++, C, Ada, Shell scripting

Tools: Arch Linux, NeoVim, Git, command line tools (gdb, pdb, mypy, linters)