John Litborn
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Experience

Education Group for Programming and Programming Didactics **Linköping University**
Amanuensis, Course Assistant, Head Assistant *2013–17*
- 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 the 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/jakkdl/XPilot-AI_LiU_fork` Python, C, HTML
- Overhauled assignments and 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 core Linux and Git skills for other team members
- Wrote automation scripts in Python & shell

Education

Linköping University, Faculty of Science and Engineering *2012–14, 2020–21*
Computer Engineering 120 Credits
- 80 credits in programming courses in a diverse set of languages with a focus on algorithm construction, optimization, low-level code, and hardware
- 40 credits in math courses
- Won a 2013 programming competition in a course to implement a sorting algorithm in microcode for a low-level simulated computer, beating the previous student record and the professor's record.

Personal Project Highlights

Necro Score Bot *2015–present*
`https://github.com/jakkdl/necro_score_bot` Python, 1500 lines of code
- Pulls leaderboard updates from the Steam API for the indie roguelike rhythm 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, has a config file and command-line flags, and is modular and multithreaded

Seat Exchange Bot *May–June 2019*
`https://github.com/jakkdl/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)