

Nikolas Kaipel

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Work Experience

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| Google Internship - Engineering <ul style="list-style-type: none">consumer health researchdata collection, analysis and visualisation using Python | July 2023 - September 2023 Bucharest |
| Siemens Mobility Austria GmbH Internship <ul style="list-style-type: none">tool development using c#compiler to LLVM-IR for a subset of Pascal in C++ | July 2022 Vienna |
| Magistratsabteilung 56 – Wiener Schulen Community Service <ul style="list-style-type: none">assisting at school NMS Absberggasseassistance services in the care and transportation of disabled children | October 2021 - June 2022 Vienna |
| Siemens Mobility Austria GmbH Internship <ul style="list-style-type: none">software development using C#, Perl and Pythonsupport for software integration and verification in the test lab | July 2021 Vienna |
| Siemens Mobility Austria GmbH Internship <ul style="list-style-type: none">software development in C#, Python and Lua | July 2020 Vienna |
| Siemens Mobility Austria GmbH Internship <ul style="list-style-type: none">development of tools for configuration and diagnosis of level crossing systems | July 2019 Vienna |

Education

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| TU Wien / Vienna University of Technology Computer Science bachelor's programme Specialisation in artificial intelligence and machine learning | October 2022 - present Vienna |
| Gymnasium AHS GRG10 Laaerberg Matura Science school branch / informatics as selected subject | 2013 - 2021 Vienna |

Programming Projects

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| Compilers for self-designed programming languages <ul style="list-style-type: none">'ayin' using C++ and the LLVM-Framework (https://github.com/nikosaurusrex/ayin)'ezo' using Flex, Bison and LLVM (https://github.com/nikosaurusrex/ezo) |
| Graphics and game development <ul style="list-style-type: none">'yak' Game Engine, using GLFW and OpenGL (https://github.com/nikosaurusrex/yak)Raytracer (https://github.com/nikosaurusrex/raytracer) |
| AI teaching itself to play Snake (https://github.com/nikosaurusrex/snakeai) <ul style="list-style-type: none">using the concept of reinforcement learningwritten in Python using the framework PyTorch |
| Projects based around chess <ul style="list-style-type: none">Analysis board for Chess written in Python using PyQt (https://github.com/nikosaurusrex/nchess)Multiplayer online chess game (https://github.com/QuikkHakk/chess)Chess bot using minimax algorithm and alpha-beta pruning (https://github.com/nikosaurusrex/chessai) |

Skill and Interests

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| Languages | German (native), English (C1) |
| Technologies | C/C++, Python, Java, JavaScript, Node JS, Linux, Microsoft Office, MySQL, Git |
| Interests | Compilers, 3D game development, Piano, History, Psychology |
| Volunteering | Fire brigade (5 years of juvenile, 3 years of active service) |