

NICHOLAS SAROIU

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OBJECTIVE

I am enthusiastic about learning and applying foundational concepts in programming, algorithms, and software development. With a strong passion for building and for problem-solving, I am eager to contribute my skills to real-world projects and collaborate with peers. Seeking opportunities to expand my knowledge and contribute to innovative solutions in the field of computer science.

EDUCATION

- 2022-2026 **Honours Bachelor of Science**, Computer Science
University of Toronto, Faculty of Arts and Science, Toronto, Canada
- 2018-2022 **High School Diploma**
Interlake High School, Bellevue, WA
- 2020-2021 **International Baccalaureate Programme Diploma**
Interlake High School, Bellevue, WA

PROJECTS

- NOV 2023 **TTC Tracker**
<https://github.com/nsaroiu/TTC-Tracker>
Developed a web application that tracks real-time Toronto TTC vehicle locations and offers arrival time predictions to users. Frontend was written using React.js, and Backend was written using Java. Data is pulled directly from the TTC's open feed.
- JUL 2023 **Niniboard V1: Custom 3D-Printed Keyboard**
<https://nicholassaroiu.com/pages/projects.html#niniboard-v1>
Designed and built several mechanical keyboards that are still used by my friends and family. The most complex one was a custom 3D-printed keyboard with a novel one-handed design shaped specifically for my hand. Used various tools such as Fusion360 and ZMK in order to build the prototypes.
- APR 2023 **Guess Who? Decision Tree Bots**
<https://github.com/nsaroiu/GuessWho>
Built five different AI players for the game of *Guess Who* using five different decision tree algorithms (ID3, CART, C4.5, Chi-Square Automatic Interaction Detection, and Reduction in Variation). Implemented a UI using Python.
- SEP 2022 **Personal Site**
<https://nicholassaroiu.com/>
Built a personal site to showcase some of my projects. Added mobile view to increase readability of site on mobile devices.
- AUG 2022 **Niniergo Split: Custom Keyboard for My Hand**
https://github.com/nsaroiu/zmk/tree/main/app/boards/shields/niniergo_split
Designed and built a custom PCB in order to build a custom keyboard. Used a self-made ergonomic design shaped specifically for my hand. Used various tools such as Ergogen, KiCAD, and ZMK in order to build the prototypes.

DEC 2020 **Backend for Controlling an LED Strip Written in Go**
<https://github.com/nsaroiu/LED.Strip.Backend>
Developed a backend script using Go in order to control the color of a strip of LED lights. Script passed RGB values from HTTP requests into an Arduino connected to the LED lights.

WORK/VOLUNTEER EXPERIENCE

JUL 2021 **Dental Software Data Conversion Specialist**
— JUN 2022 *Advanced Dentistry at Century Square*, Seattle, Washington
Converted dental data across two dental practice software management packages. Duties included transfer of doctor notes, tooth charts, and health histories.

APR 2020 **Odle Advanced Programming Club Founder**
— MAY 2022 *Odle Advanced Coding Club*, Bellevue, Washington
Co-founded a middle school club for competitive programming. Designed a rigorous curriculum teaching advanced Java topics such as binary trees, hash tables, and graphs. Scheduled the club during the Covid-19 pandemic.

JUL 2021 **Summer Program Teaching Aide**
UW Robinson Center for Young Scholars, Seattle, Washington
Served as a Teaching Aide for Physics of Robotics course. Supervised high school freshmen, graded homework, and answered various physics and robotics-related questions.

PROGRAMMING SKILLS

Python, Java, Go, Javascript, React.js, Node.js, HTML/CSS, Git, LaTeX, Assembly

PERSONAL INFORMATION

Double Citizenship: USA and Canada