

# Avital Palchik



## SKILLS

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**Languages:** JS, TS, Python, C++, HTML/CSS | **Frameworks:** ReactJS, NextJS, NodeJS, Tailwind CSS  
**Tools:** Git, Azure DevOps, Cypress, Playwright, Figma | **Focus Areas:** Web & app development, full stack

## PROFESSIONAL EXPERIENCE

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**AGF INVESTMENTS INC. - Junior Web Developer** **May - Aug 2024, Jan 2026 - Present**

- Engineered **34 fixes** applied to production to improve page translations, fix visual bugs, and speed up loading times by up to **84%** using **RESTful APIs** and JSON responses
- Built **3 high-fidelity frontend demos** of the same page using Tailwind CSS, Foundation, and Bootstrap to evaluate and recommend the best framework for a full website rebuild
- Managed a project to link developer JS work with Cascade CMS to enable **mass website updating** from a centralized, secure source, taking advantage of Azure DevOps

**PLOOTO - Software Development Engineer in Test** **Jan - Apr 2025**

- Automated** new tests and stabilized existing coverage for **90+ tickets** using Playwright and Git, focusing on ReactJS workflows, reducing the need for manual biweekly sprint testing by 32+ test cases
- Directed coding and infrastructure development of **14** reusable Playwright fixtures, enabling **scalable test creation** for a new data table feature, which was propagated over 12 times throughout the application
- Collaborated with developers to integrate **E2E testing** into release processes, reducing test flakiness by **32%**

**STUDICA LTD. - Full Stack Developer** **Sep - Dec 2023**

- Independently ported **4000+** lines of backend code for serial communication protocol from **C#/.NET to C++**, using libusb and **Boost.Beast** to stream and interpret real-time data from **sensor boards** for the user interface
- Overhauled and tested **ReactJS** frontend to add features such as dark/light themes, font scaling, responsive design, and accessibility features for **70+** UI components using **TailwindCSS** and **ThreeJS**

**WIZ ROBOTICS - Front End Engineer & Technical Project Manager** **Jan - Apr 2023**

- Developed and deployed **35+** curriculum-based web pages using React, Node.js, Git, and AWS, converting instructional content into responsive, **production-ready** frontend applications.
- Tested and tracked 7 JWT-dependent **RESTful APIs** for a large-scale **ExpressJS**-based website using Git, Postman, Docker, and Playwright in collaboration with a small team of software developers

## PROJECTS

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**UW Baja SAE Lead Developer:** [waterloobaja.ca](http://waterloobaja.ca)

- Independently developed a new website for Waterloo's Baja SAE team based on wireframes built in Figma

**Machine Learning, Universidad Carlos III de Madrid:** [github.com/avitalpal/ml-fall-2025](https://github.com/avitalpal/ml-fall-2025)

- Applied supervised learning (classification & regression) with **scikit-learn** to real business datasets
- Performed **feature engineering**, **clustering analysis**, and evaluated models with accuracy and F1 metrics

**Ciabatta's Revenge Web Game:** [github.com/avitalpal/ciabattas-revenge](https://github.com/avitalpal/ciabattas-revenge)

- Architected a pixel-based 2D web game including features such as key inputs, inventories, and custom levels

## EDUCATION

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**UNIVERSITY OF WATERLOO - Systems Design Engineering, BASc, GPA: 3.92 / 4** **Sep 2022 - Apr 2027**

**Programming Coursework:** Data Structures & Algorithms (C++), Digital Systems, Machine Learning (Python)

**Coursework Topics:** Object-oriented programming, Combinatorial logic, Iterative design, Systems modeling, Human interaction analysis, Customer experience design, Controls and PID design, Prototyping and creative innovation