Philippe Nikolov

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github | linkedin | website

Software Engineering student passionate about full-stack development with experience in scalable web applications and creating small, practical projects to simplify everyday tasks

Education

Bachelor of Software Engineering — **Sep 2022 - May 2026**
Concordia University — *Montreal, Canada*

DEC - Computer Science & Mathematics — **Sep 2020 - May 2022**
Vanier College — *Montreal, Canada*

Skills

Frontend Development	React | Angular | NextJS | TypeScript | JavaScript | TailwindCSS | Vite | Handlebars
Backend Development	C# | .NET | Node.js | Express | Django | Java | Python | C
Database & Storage	MongoDB | SQL | PostgreSQL | SQLite | Firebase | Data Modeling
DevOps & Cloud	Azure DevOps | Docker | CI/CD | Git | Containerization | Cypress
Tools & Methodologies	Agile | Scrum | RESTful APIs | Responsive Design | Unit Testing | WebSockets

Experience

Datex — **May 2024 - May 2025**
Software Engineering Trainee — *Montreal, Canada*

- Contributed to the development of a WMS (Warehouse Management System) **application-building platform** used by the product design team to create custom client solutions.
- Transitioned to a more full-stack focused role, leveraging .NET technologies to improve application performance and scalability by 35%.
- Implemented a **custom infinite and virtual scrolling grid** to handle large datasets efficiently, reducing load times by 40% for datasets exceeding 5,000 records.
- Developed a **complex SQL migration script using paging**, optimizing data transfers of 10,000+ rows and reducing migration downtime from hours to minutes.
- Collaborated with cross-functional teams, including Product Design, UX and QA, to refine requirements and deliver high-quality releases while maintaining a 95% test coverage.

Datex — **Sep 2023 - Dec 2023**
Software Engineering Intern — *Montreal, Canada*

- Assisted in developing a WMS (Warehouse Management System) application-building platform, collaborating closely with the Product Design team.
- Focused on front-end development with Angular, including the creation of a **custom icon picker** to enhance the software's usability.
- Gained valuable experience working in an **Agile** environment, contributing to feature design, implementation, and testing.

Notable Projects

PickUp - Sports Meetup Platform — **Apr 2025 - Present**
Mobile Developer — *Montreal, Canada*

- Developing a **cross-platform mobile application** using React Native and Expo that connects sports enthusiasts through location-based event discovery.
- Implemented an **interactive map interface** with React Native Maps for displaying and joining nearby sports events with real-time location sharing.
- Integrated **Supabase** for backend services including user authentication, database management, and real-time data synchronization.
- Currently building an **in-app messaging system** for event coordination and implemented push notifications for event updates and nearby activity alerts.

Notable Projects (continued)

Peer Assessment Platform
Sep 2024 - Dec 2024

Full Stack Developer — *Montreal, Canada*

- Launched a **MERN stack web application** by setting up the initial React frontend, Node/Express backend, and MongoDB database structure.
- Secured **user authentication** with password hashing and login tokens, preventing unauthorized access and ensuring safe user sessions.
- Implemented role-based access control, restricting routes and functionality according to user roles (student vs. instructor).
- Developed a **private messaging system** using WebSockets (Socket.io) for real-time chat, along with a responsive chat UI.
- Created an **automated database seeding script** to populate the system with sample data (students, instructors, groups, and grades) for testing and development.
- Enhanced UI/UX by adding modern features, such as floating cards and drag and drop functionality.

SEES - Smart Educational Events System
Jan 2025 - Apr 2025

Full Stack Developer — *Montreal, Canada*

- Built a comprehensive educational event management platform using **Django REST Framework** for the backend API and **Next.js with TypeScript** for the responsive frontend.
- Designed a flexible data model with Django ORM to efficiently manage complex relationships between users, events, educational content, and payments.
- Implemented role-based access control system with secure token authentication for organizers, speakers, and attendees with appropriate permissions.
- Integrated **Stripe payment processing** for ticketed events with webhook support to automate attendee registration after successful payment.
- Created interactive features including quiz functionality with real-time scoring and a notification system to keep users informed of event updates.
- Built reusable React components with **TailwindCSS** for consistent styling throughout the application while ensuring responsive design for all devices.

RetroPomodoro
Feb 2025 - Apr 2024

Frontend Developer — *Montreal, Canada*

- Developed a **minimalist Pomodoro timer application** using Electron.js for cross-platform functionality with a stylish retro interface.
- Implemented both analog and digital clock visualizations using the Canvas API with custom CRT screen effects for an authentic retro aesthetic.
- Designed an intuitive UI that tracks work sessions, provides desktop notifications, and allows for customizable work/break durations.
- Created a **frameless window interface** that remains unobtrusive while maintaining full functionality and session tracking capabilities.

RetroFlags
Mar 2025 - Apr 2025

Frontend Developer — *Montreal, Canada*

- Developed a **retro-style flag guessing game** with a nostalgic CRT screen aesthetic using vanilla JavaScript, HTML5, and CSS3.
- Built as a **personal educational project** to improve my geography knowledge while practicing frontend development skills.
- Implemented **game logic for 197 country flags** with a shuffling algorithm to ensure randomized but comprehensive gameplay.
- Created a responsive UI with custom CSS styling for CRT scan line effects, retro font integration, and intuitive user controls.
- Designed an **adaptive scoring system and timer** that tracks user progress and provides immediate feedback on correct answers.

Mission to Mars
Sep 2022

Developer — *Montreal, Canada*

- Developed a Python-based orbital mechanics tool for **calculating and simulating Hohmann transfer** in the context of our solar system, where a rocket orbiting Earth transfers to Mars' orbit.
- Implemented core formulas to determine delta-v requirements, transfer times, and fuel usage for efficient space travel maneuvers.
- Validated calculations against known theoretical values and literature, ensuring accuracy and reliability of the simulation outputs.