Philippe Nikolov

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github | linkedin

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
Backend Development	C# | .NET | Node.js | Express | Java | Python | C
Database & Storage	MongoDB | SQL | PostgreSQL | Database Migration | Data Modeling
DevOps & Cloud	Azure DevOps | Docker | CI/CD | Git | Containerization

Experience

Datex — **May 2024 - Present**

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.
- Implemented a **custom infinite and virtual scrolling grid** to handle large datasets efficiently.
- Developed a **complex SQL migration script using paging**, optimizing data transfers of 10000+ rows and minimizing downtime.
- Collaborated with cross-functional teams, including Product Design, UX and QA, to refine requirements and deliver high-quality releases.

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

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.

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.