# Alexander Potiagalov

Vancouver, BC | 604-352-5948 | apa168@sfu.ca | linkedin.com/in/alexander-potiagalov/ | github.com/AlexanderPotiagalov | Portfolio

## Education

Simon Fraser University — Burnaby, BC, Canada

*Bachelor of Science in Computing Science, Minor in Business* — ***Expected Graduation: Mar. 2027***

- **GPA:** 3.7, Dean's Honour Roll Fall 2024 & Spring 2025
- **Relevant Coursework:** Statistics, Introduction to AI, Data Structures & Algorithms, Software Engineering

## Technical Experiences

**Junior Data Analyst** | *Fisheries and Oceans Canada* | Vancouver, BC — **Aug. 2025 - Present**

- Architected an internal **ML Model Repository** for **15+** models using **JavaScript**, including proposals & documentation
- Integrated the repository with **Azure Blob Storage** and **Azure ML Workspace** for scalable model management
- Developed a **Python** web scraper using **Playwright** for dynamic/static sites and embedded content into **Chroma**
- Utilized **Azure OpenAI** to extract entities, summarize, and generate analyst-ready insights from scraped data
- Prototyping a **RAG** pipeline in **Python** with **multi-AI agent** orchestration to extract insights from fishery policy data
- Learning **Microsoft Fabric** and collaborating in an **Agile** environment (weekly sprints, PR reviews, iterative delivery)

**Software Developer** | *Google Developer Student Club* | Burnaby, BC — **May 2025 - Aug. 2025**

- Co-led development of a **React**-based campus events dashboard for **200+** students, integrating Firebase for real-time data
- Delivered three workshops on **Next.js** and **Tailwind CSS**, boosting attendance by **35%** and onboarding **50+** members
- Reviewed code & mentored **10+** juniors on **JavaScript** best practices, improving code quality & reducing bugs by **20%**

**Software Developer** | *SFU Surge* | Burnaby, BC — **Jan. 2025 - Apr. 2025**

- Published a resume & cover letter builder with **OpenAI API**, using **prompt engineering** for tailored job-specific content
- Leveraged **JSearch API** to access **120,000+** job listings while managing product **architecture**, & rapid **MVP** delivery.
- Applied Jakob Nielsen's 10 heuristics for user interface design using **React**, **Tailwind CSS**, **ShadCN UI**, and **Figma**

**Frontend Developer** | *CJSF 90.1FM Radio* | Vancouver, BC — **Apr. 2024 - Aug. 2024**

- Designed & developed a modernized website in an **Agile** workflow, boosting engagement and ensuring **WCAG** accessibility
- Used **Headless Drupal** & **NextJS** to build a dynamic, API-driven frontend, improving UI for **1,000+** monthly visitors
- Worked with station staff & developers to prototype website layouts & workflows using **Figma**, increasing donations by **20%**

## Technical Projects

**PrepMate** | *Next.js, TypeScript, Firebase/Firestore, Tailwind CSS, Vercel, Vapi SDK* — **Jul. 2025**

- Launched an **AI interview voice agent** using the **Vapi SDK** that conducts mock interviews & provides real-time feedback
- Built the frontend with **Next.js**, **TypeScript**, and **Tailwind CSS** for responsive UI and smooth user experience
- Implemented auth, session storage, & usage analytics on **Firebase/Firestore**; deployed globally on **Vercel** for low latency

**Tech Notes** | *Node.js, Express.js, MongoDB, React, Redux Toolkit, JWT* — **June 2025**

- Deployed a full-stack note & task management app using the **MERN stack**, enabling real-time CRUD operations
- Incorporated **JWT authentication** for secure user login and **Redux Toolkit** for efficient state management
- Ran **Postman** for API testing and **Figma** for UI/UX design, ensuring a fully responsive experience across all devices

**Sketch 3D Converter** | *React, TypeScript, Three.js, OpenAI Vision API* — **May 2025**

- Created a **React + TypeScript** sketch tool that converts strokes to SVG & extrudes them into 3D via **Three.js**
- Employed **OpenAI Vision API** for shape classification, enabling AI-driven recognition of hand-drawn sketches
- Enhanced 3D modeling by refining extrusion logic, improving shape accuracy by **30%** & ensuring smooth user interaction

**Vacuum Cleaner AI Agent** | *Python, NumPy, Matplotlib, Pandas* — **Jan. 2025**

- Simulated an autonomous vacuum **agent** navigating grid-based environments using **Python**, **NumPy**, and **Pandas**
- Compared and enforced **BFS**, **DFS**, **UCS**, **Greedy**, and **A* Search** algorithms to optimize traversal efficiency
- Visualized pathfinding performance across layouts using **Manhattan** and **Euclidean** heuristics with **Matplotlib**

## Technical Skills

**Languages**: JavaScript (ES6+), TypeScript, Python, C, C++, SQL, HTML5, CSS3, Bash
**Frameworks & Libraries:** React.js, Next.js, Node.js, Express.js, Tailwind CSS, ShadCN UI, NumPy, Pandas, Matplotlib, Flask
**APIs:** OpenAI API, Gemini API, PayPal API, OpenWeatherMap API, JSearch API, Yfinance API, FMP API, REST APIs
**Tools**: Git, GitHub, GitLab, Docker, CI/CD (GitHub Actions), Linux, Virtual Machines, Visual Studio Code, Figma