

# Anna Rusinova

## Software Engineer Intern

I am a **4th year computer science student**, focused on crafting **user-centric software solutions** by adhering to the best practices of software development. My expertise spans Java, C++, C, Rust, JavaScript, HTML/CSS, and Linux, underscoring my commitment to **improving user experience and software quality** through thoughtful design and development.

## Projects

### Interactive Game System with RESTful API Integration Feb - Mar 2024

Java, Spring Boot, RESTful API, JSON, Swing for GUI

- Designed and integrated a **RESTful API** in **Spring Boot** to connect the Java-based game logic with a web client, enabling dynamic game state management and real-time updates.
- Employed **MVC architecture** to enhance code reusability and system testability.
- Applied algorithms for dynamic object placement and collision detection, optimizing gameplay performance.
- Integrated **JSON** for efficient data interchange between the front-end and backend, facilitating complex game functionalities like objects construction, scoring, and state visualization.

### Paletä (Team Project) | Agile AI-Powered Color Palette Generator Dec 2023

React, Node.js, Color-thief library, OpenAI API

- Led the full-stack development of a user-centric web application that employs AI to generate color palettes from images/prompts.
- Integrated **OpenAI API** to automate the creation of custom color palettes, harnessing AI to deliver a unique, interactive experience tailored to user preferences.
- Managed source control and documentation using **Git** and **GitHub**, and streamlined workflows via **Agile Kanban** and **CI/CD pipeline** with **React** (Netlify) and **Node.js** (Heroku), ensuring robust application performance and seamless user engagement.

**Repository:** <https://github.com/scp10sfu/Root-9-Group-Project>

**Website:** <https://mypaleta.netlify.app/>

### Client-Server Group Chat Nov - Dec 2023

C, WebSockets, POSIX Threads

- Developed a **real-time communication** server supporting multiple clients simultaneously. Optimized for low latency and high throughput using **WebSockets** and multithreading.

### Blockchain System Nov - Dec 2023

Rust, Multithreading

- Designed and executed a **multi-threaded** mining algorithm using Rust's **ownership and concurrency** features, significantly improving the speed of proof-of-work computation by partitioning the proof space and employing a work queue model for distributed task processing.
- Implemented a robust work queue utilizing SPMC and MPSC channels for dynamic task distribution and result aggregation among multiple worker threads.

Vancouver, BC - Canada

hello@annarusinova.dev

## Education

### Bachelor of Science in Computing Science

Simon Fraser University

Burnaby, Canada | Sep 2020 - Apr 2025

#### Relevant coursework:

- Data Structures & Algorithms
- Systems Programming
- Object Orientated Design
- Software Engineering
- Computer Architecture
- Comparative Programming Languages

## Skills

#### Programming Languages

Java · C++ · C · Rust · JavaScript · Haskell · Bash · MATLAB · LaTeX · Python · RISC-V ASM

#### Development Tools

Version Control (Git) · Node.js · RESTful API · Bash scripting · CMake · Valgrind · VS Code · IntelliJ IDEA · Neovim · UML Diagram

#### Collaboration

Agile · Detail-oriented · Problem-solving · Flexible · Self-starter · Communicative · Responsible · Strong organizational and analytical skills

#### Design & UX

Figma · Wireframing · UX/UI Prototyping · User Flows · User-Centered Design · Usability Testing

#### Languages

English · Russian

## Links

 [linkedin.com/in/annarusinova](https://linkedin.com/in/annarusinova)

 [github.com/arusinova](https://github.com/arusinova)

 [annarusinova.dev](https://annarusinova.dev)