

Pal Tilva

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EDUCATION

Simon Fraser University

Bachelor of Science in Computer Science

May 2027 (expected)

Burnaby, BC

EXPERIENCE

Software Developer

Sept 2025 – Present

Prototyp3

- Architected a modular frontend in **React**, **TypeScript**, and **Tailwind CSS**, improving delivery time by 30%.
- Engineered secure authentication and real-time data syncing via **Supabase**, supporting 50+ user profiles.
- Deployed on Vercel with automated **GitHub Actions CI/CD**, accelerating deployment cycles by 40%.
- Collaborated with a 5-member **Agile** team through code reviews and sprint planning to accelerate feature delivery.

Software Developer

May 2025 – Present

SFU Robot Soccer

- Developed an **A* pathfinding module** in a **C++** microservice for 6+ autonomous robots, improving simulation performance by 20%.
- Integrated **gRPC**-based client-server architecture, reducing AI-to-backend communication overhead by 25%.
- Authored 30+ unit tests using **Boost.UT** and **Python**, increasing test reliability and code coverage.
- Drove **CI/CD** adoption with a 6-member Agile team using **GitLab** and **Docker** in a Linux-based environment, reducing release defects by 30%.

PROJECTS

Kaeru (StormHacks 2025) | Next.js, AWS Amplify, Amazon Bedrock, AWS Step Functions

Oct 2025

- Built an end-to-end **fintech dashboard** that detected and canceled fraudulent or recurring transactions using Plaid API and **Amazon Bedrock**, reducing manual workload by 80%.
- Designed a responsive **Next.js** frontend with **Tailwind CSS** and **ShadCN**, enabling real-time visualization of 100+ transactions and AI-driven fraud insights.
- Deployed **AWS AppSync (GraphQL API)**, **AWS Lambda**, and **AWS Step Functions** to automate cancellation and dispute workflows, improving resolution time by 40%.
- Integrated **Vapi** for real-time voice agent automation, allowing autonomous merchant calls and boosting successful cancellations by 35%.

InterviewAI | Next.js, React, Firebase, TailwindCSS, TypeScript, Playwright

July 2025

- Applied NLP with **Gemini API** to parse resumes and generate structured interview questions.
- Architected multi-turn chat using **Firebase Firestore (NoSQL)** and validated flows with **Playwright**, improving response quality by 30%.
- Constructed a responsive UI using **TailwindCSS** and **ShadCN**, achieving 95+ Lighthouse scores.
- Launched on Vercel with **CI/CD**, ensuring fast performance and smooth iteration.

SkyFare | Next.js, JavaScript, React, GitHub Actions, Sentry, Netlify

Apr 2025

- Created a flight search app with real-time results, status tracking, and a Gemini-powered chatbot; earned the **People's Choice Award** among 20+ teams.
- Led a 4-member team as **PM** and **core developer**, completing full **SDLC** with 100% sprint completion.
- Integrated Amadeus API for flight search and Gemini NLP for intelligent query handling.
- Configured **Sentry** and automated builds via **GitHub Actions**, reducing deployment overhead by 40% and resolving 10+ runtime issues.

LEADERSHIP/EXTRACURRICULAR

WiCS Mentor

Sept 2025 – Present

- Mentoring 3+ first-year CS students, improving academic outcomes and confidence through personalized support, study planning, and skill-building workshops.

TECHNICAL SKILLS

Languages: Python, C++, Java, JavaScript, TypeScript, SQL, HTML/CSS, Rust

Frameworks/Libraries: React, Next.js, Node.js, Tailwind CSS, ShadCN/UI, Zod, Playwright, Boost.UT

Cloud & AI: AWS (Amplify, Bedrock, Lambda, AppSync, Step Functions, Cognito)

Tools: Linux, Git, GitHub Actions, Docker, Figma, Sentry, PyTest

Databases: PostgreSQL, MongoDB, MySQL, Firebase (Firestore), Supabase, DynamoDB