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## Marko Bachvarovski

Canadian citizen  
TN Visa eligible

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## Work Experience

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### Savi Finance (Fintech Startup)

*Senior Software Engineer*

Toronto, ON  
May 2025 - Present

- Led a team of 3 engineers to rebuild Savi Finance's Identity infrastructure using TypeScript and MongoDB, to support large-scale multi-tenant Identity and Access Management (IAM), transforming simple user login into role-based platform that directly enabled 12+ enterprise deals

*Software Engineer*

November 2024 - May 2025

- Enabled data analysis at scale for 10,000+ users by building a high-scale transaction export service using Golang, AWS SQS and S3 for storage, maintaining sub-2 minute response times during transaction processing
- Designed a Python algorithm for managing shared expenses, achieved sub-100ms latency on reads by using Redis to cache a real-time balance graph and reconciling 30,000+ transactions
- Engineered an automated vendor matching pipeline by fetching vendor data and applying a Levenshtein distance-based retrieval algorithm, processing 50,000+ transactions and accurately identifying 3,000+ vendor mismatches
- Developed an event-driven notification service in under 6 weeks, using RESTful APIs, AWS and TypeScript to deliver real-time alerts across services via a fan-out and pub-sub architecture

### Insurance Systems Inc.

*Software Developer*

Toronto, ON  
June 2023 - November 2024

- Built a broker-driven pricing algorithm in JavaScript and PostgreSQL that enabled real-time commission adjustments to reduce quotes for hesitant clients, unblocking 170+ quotes annually and leading to a \$400,000 estimated annual revenue increase
- Developed a full-stack policy management feature using HTML, CSS, and JavaScript for a new client; collaborated with cross-functional teams to integrate client workflows and transition from manual to digital processes, improving operational efficiency
- Automated recurring policy renewals using Python and JavaScript job schedulers to execute batch operations on PostgreSQL-based database, saving 160+ hours of manual policy renewal efforts
- Maintained a real-time write-behind cache to minimize PostgreSQL writes while ensuring strong consistency with client-side updates, supporting accurate premium calculations and reliable downstream data processing

## Education

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### University of Toronto

Honors Bachelor of Science (HBSce) with Distinction, major in Physics, minor in Computer Science

## Additional Skills

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- **Languages** — Java, C++
- **Technologies/Libraries** — Git, Github, React, Docker, Kubernetes, JSON-RPC, gRPC, Django, Bootstrap, Jest, Postman, Jenkins, Sentry
- **Other** — Relational databases, Microservices, Cloud architecture, Distributed Systems, Object-Oriented Design, CI/CD