

# Ayrton Parkinson

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## Education

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Carleton University, Bachelor of Science in Computer Science – GPA: 4.0/4.0	Expected – 2026
Queen's University, Master of Arts in Economics – GPA: 3.9/4.0	2017
University of Ottawa, Bachelor of Social Science in Economics – GPA: 3.3/4.0	2016

## Work Experience

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<b>Software Engineer Intern, Fullscript</b>	Jan 2025 – Present
<ul style="list-style-type: none"><li>Contributing to project breakdowns, code reviews, and implementation of new features and bug fixes in backend GraphQL API and Ruby on Rails</li></ul>	
<b>Risk Manager, Canada Deposit Insurance Corporation</b>	Oct 2020 – Dec 2024
<ul style="list-style-type: none"><li>Built in-house loan valuation models using Python to help value loan portfolios, eliminating the need for outsourcing to external consulting firms</li><li>Optimized risk assessment workflow by leading the development of comprehensive data dashboard in collaboration with, allowing managers to easily query for and download data from centralized location</li><li>Led research to provide senior management with data-driven and actionable advice to manage credit risk</li><li>Organized and led corporation-wide technical presentations to improve cross-team collaboration and information sharing</li></ul>	
<b>Economist, Department of Finance Canada</b>	Oct 2017 – Oct 2020
<ul style="list-style-type: none"><li>Built models using R programming language to analyze the impact of economic policy with significant financial implications (\$100M+) and support senior management with timely research and advice</li><li>Briefed senior management for committee meetings by summarizing and explaining key results from research</li><li>Increased efficiency and quality of research by automating existing data analysis work using R and Excel</li></ul>	

## Projects

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<b>Finance-Related Social Media Platform</b>	<a href="https://github.com/ayrt-n/invesddit">github.com/ayrt-n/invesddit</a>
<ul style="list-style-type: none"><li>Created and launched finance related content aggregation and discussion website, allowing users to post images, text, or links, respond to and like comments or posts, and create or subscribe to different communities</li><li>Built backend REST API with Ruby on Rails and PostgreSQL and frontend user interface with React and Tailwind CSS</li><li>Integrated with Amazon Web Services to store user uploads and Twilio's SendGrid API to manage user emails</li><li>Implemented user authentication using JSON Web Token and React Context to manage authentication and permissions</li><li>Wrote unit and integration tests in RSpec and Jest for backend and frontend features</li></ul>	
<b>Sudoku Solver</b>	<a href="https://github.com/ayrt-n/python-sudoku-solver">github.com/ayrt-n/python-sudoku-solver</a>
<ul style="list-style-type: none"><li>Built sudoku puzzle solver using Python which takes images of sudoku boards and returns the solution</li><li>Used OpenCV and PyTesseract libraries to process images, extract digits, and convert them into machine-readable data</li><li>Implemented constraint propagation algorithm to improve run-time of solver by 50%+, compared to brute-force</li></ul>	
<b>Command-Line Chess</b>	<a href="https://github.com/ayrt-n/ruby-chess">github.com/ayrt-n/ruby-chess</a>
<ul style="list-style-type: none"><li>Developed fully functional game of chess using Ruby, played through the command-line</li><li>Built using test-driven development with RSpec to implement and refactor game while limiting potential for bugs</li></ul>	

## Skills

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**Programming Languages:** Ruby, Python, Java, JavaScript, SQL, HTML, CSS

**Frameworks and Technologies:** Ruby on Rails, GraphQL, React, Tailwind, Git, Amazon Web Services