

SREE PRANAY SUBRAMANIAN

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EDUCATION

University of Waterloo

Bachelor of Computer Science and Finance (Dual Major - Honours, Co-op)

Waterloo, ON

Sep 2025 – May 2030

EXPERIENCE

Quantitative Analyst

Jan 2026 – Present

Financial Analysis and Risk Management Student Association

University of Waterloo, Waterloo, ON

- Analyzed precious metals spreads against consumer inflation expectations using, yFinance+FRED API to identify trading signals with 11.8% copper out-performance relative to gold and silver returns
- Developed a **SABR volatility model** leveraging volatility surface analysis for accurate option pricing, and volatility detection.
- Reverse engineered MVO portfolio optimization techniques, to analyze functionality+reasoning, of created portfolio structure

External Affairs Coordinator

Jan 2026 – Present

UW Computer Science Club

University of Waterloo, Waterloo, ON

- Coordinated and maintained ongoing relationships with top club partners like Google, Tesla, QNX, and more
- Prepared enhanced sponsorship outreach material/documentation including, club financial statements, term forecasts and more

Student Council President

Sep 2021 – Jun 2025

St. Augustine Catholic High School

Markham, ON

- Led a **30+ member team** and directed logistics for 20+ major events including Games Nights and School Carnivals
- Oversaw the **financial organization of over \$35,000** in revenue for an annual Semi-Formal Event, managing all sales logistics
- Introduced a data-driven feedback collection initiative which increased student interest by 64% in the following 4 events

Sponsorship Committee Lead Manager

Feb 2025 – Jun 2025

Business Leadership Council - Business Banquet for the SickKids Foundation

St. Augustine CHS, Markham

- Raised **\$45000** for the **SickKids Foundation** as the Sponsorship lead, for a business banquet event, organized by the council
- Secured sponsorships from firms like Qualcomm, Starbucks, and TD Bank through strategic outreach, networking, and more
- Generated **\$10000+ revenue** for the charity, through organizing Silent Auction logistics, with high-value donations and prizes

Robotics Camp Counselor

Jun 2024 – Aug 2024

City of Markham

Markham, ON

- Mentored 300+ kids aged 6-13, across 2 months, through various robotics/programming challenges, teaching Scratch and Python
- Ideated and developed a new, successful design thinking robotics challenge, while ensuring camper adherence to safety guidelines

PROJECTS

Personal Portfolio Website | Next.js, Tailwind CSS, React.js

2026

- Deployed a personal portfolio website using core frontend tools, **React+Next.js**, and implemented **CI/CD with Github actions**
- Coded quality scroll animations and website interactions, using Tailwind CSS and deployed using Vercel

AlphaBL-Portfolio Creation and Optimization Model | Python, NumPy, pandas, yfinance, PyPortfolioOpt

2025

- Engineered strategic stock selection and **portfolio optimization system** to consistently beat an average of the TSX/S&P500
- Implemented rank-based stock scoring using metrics such as **Alpha, Sortino, Momentum, and Beta** to identify top securities
- Programmed Black-Litterman optimization**, for weightage distribution with Sharpe ratio maximization, while also following diversification constraints (40% sector/15% position) to maintain portfolio balance while simultaneously achieving excess returns

LoanOracle | Python, XGBoost, Scipy, Sklearn, Matplotlib, Streamlit

2025

- Built an **XGBoost powered ML model**, trained on 60K+ samples, to **predict loan default probability** using financial profiles
- Achieved professional grade performance metrics: **0.7 F1-score, 0.52 Gini coefficient, 93% precision** at optimal threshold
- Encoded 30+ features including composite risk indicators and implemented train/test validation to prevent data leakage
- Conducted model evaluation using **ROC-AUC (0.75 score)** analysis, KS statistics, and precision-recall curves to optimize decision thresholds across different risk tolerance profiles (conservative, balanced, aggressive)

EmotionLens AI | Python, TensorFlow, Keras, Matplotlib, NumPy, Pandas

2024

- Programmed an AI model to assist alexithymic individuals with emotion recognition, by classifying 7 different facial expressions
- Utilized **TensorFlow**, Matplotlib, NumPy, and Pandas for AI structure, convolutional neural network, data processing, and visuals

Gun Smash Bros | Java, SuperSocketMaster, Object Oriented Programming, Swing

2023

- Developed a 2D, platformer, PvP gun game using Java and **object-oriented programming principles**
- Implemented **multiplayer networking** with SuperSocketMaster libraries (Java Socket Connections) and a GUI with Swing

TECHNICAL SKILLS

Skills: Python, Java, Javascript, Racket, Next.js/React.js, Object Oriented Programming, Leadership, Finance and Quantitative Analysis

Frameworks: XGBoost, Tensorflow, NumPy, pandas, SciPy, Scikit Learn, Sklearn, Matplotlib, PyPortfolioOpt, Tailwind CSS, yfinance

AWARDS & SCHOLARSHIPS

University of Waterloo President's Scholarship of Distinction (2025) | Valedictorian of Grad Class (2025) | Principal's Award (2025) | Catholic School Council Graduation Award (2025) | York Secondary Catholic Presidents Council Leadership Award (2025) | Titan of The Month (2025)