

Pranay Subramanian

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EDUCATION

University of Waterloo

Bachelor of Computing and Financial Management

Waterloo, ON

Sept 2025 – May 2030

St. Augustine Catholic High School

Ontario Secondary School Diploma and STREAM+ Program Diploma

Markham, ON

Sept. 2021 – June 2025

EXPERIENCE

Student Administrative Council President

Sept. 2021 – June 2025

St. Augustine Catholic High School

Markham, ON

- Led a 30+ member team and directed logistics for 20+ school-wide events including Games Nights and School Carnivals
- Oversaw the financial organization of over \$35,000 in revenue for an annual Semi-Formal Event
- Introduced a data-driven feedback collection initiative which revamped student interest

Sponsorship Committee Lead Manager

Feb. 2025 – June 2025

Business Leadership Council - Business Banquet

St. Augustine CHS, Markham

- Led a Sponsorship Committee in raising \$45,000 for the SickKids Foundation for a major business event
- Secured sponsorships from firms like Qualcomm, Starbucks, and TD Bank through strategic outreach
- Organized a Silent Auction with high-value donations, contributing \$10,000+ to the total

Robotics Camp Counsellor

June 2024 – Aug. 2024

City of Markham

Markham, ON

- Mentored over 300 kids aged 6-13 through robotics and programming challenges, teaching Scratch and Python
- Ideated and developed a successful new Amazing Race themed design thinking robotics project for the camp

Senior Treasurer

Sept. 2022 – June 2025

Engineering and Science Club

St. Augustine CHS, Markham, ON

- Managed all club finances including membership fees and material costs through spreadsheeting
- Oversaw the collection of approximately \$1,000 worth of fees and subsequent budgeting of revenue

PROJECTS

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

2025

- Developed a quantitative portfolio optimization system combining strategic stock selection with Black-Litterman optimization to construct market-beating portfolios across US and Canadian exchanges
- Implemented rank-based stock scoring using quantitative metrics including Alpha, Sortino Ratio, Momentum, and Beta to identify top-performing securities from validated market data
- Employed Black-Litterman optimization function for optimal asset weightage with Sharpe ratio maximization, subject to sector diversification constraints (max 40% per sector) and 5-15% position limits

Credit Risk Loaner | *Python, XGBoost, Pandas, NumPy*

2025

- Built a machine learning model using XGBoost to predict loan default risk and determine if a given loan, should/shouldn't be approved using borrower financial profiles
- Trained on a dataset of 45,000+ individuals with features including age, occupation, income, credit history, and existing loan obligations
- Achieved 93+% average accuracy and precision in approving, and denying the right loans. *Performance can increase with confidence threshold variance

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

2024

- Developed an AI model to assist alexithymic individuals with emotion and facial expression recognition
- Utilized TensorFlow, Matplotlib, NumPy, and Pandas for AI structure, data processing, and visualization

Gun Smash Bros | *Java, SuperSocketMaster, OOP, Swing, JavaFX*

2023

- Developed a 2D platformer PvP gun game using Java and object-oriented programming principles
- Implemented multiplayer networking with SuperSocketMaster libraries and GUI with Swing and JavaFX

TECHNICAL SKILLS

Languages: Python, Java, Racket

Frameworks & Libraries: TensorFlow, XGBoost, PyPortfolioOpt, Matplotlib, NumPy, Pandas, SuperSocketMaster, JavaFX

Skills: Machine Learning, Quantitative Finance, OOP, Leadership, Project Management

AWARDS & SCHOLARSHIPS

University of Waterloo President's Scholarship of Distinction (2025) | Valedictorian Award (2025)

Principal's Award (2025) | Catholic School Council Graduation Award (2025)

York Secondary Catholic Presidents Council Leadership Award (2025) | Titan of The Month (2025)