

Pranay Subramanian

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EDUCATION

University of Waterloo <i>Bachelor of Computing and Financial Management</i>	Waterloo, ON
	<i>Sept 2025 – May 2030</i>
St. Augustine Catholic High School <i>Ontario Secondary School Diploma and STREAM+ Program Diploma</i>	Markham, ON
	<i>Sept. 2021 – June 2025</i>

EXPERIENCE

Student Administrative Council President <i>St. Augustine Catholic High School</i>	Sept. 2021 – June 2025
• Led a 30+ member team and directed logistics for 20+ school-wide events including Games Nights and School Carnivals	Markham, ON
• 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 <i>Business Leadership Council - Business Banquet</i>	Feb. 2025 – June 2025
• Led a Sponsorship Committee in raising \$45,000 for the SickKids Foundation for a major business event	St. Augustine CHS, Markham
• 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 <i>City of Markham</i>	June 2024 – Aug. 2024
• Mentored over 300 kids aged 6-13 through robotics and programming challenges, teaching Scratch and Python	Markham, ON
• Ideated and developed a successful new Amazing Race themed design thinking robotics project for the camp	
Senior Treasurer <i>Engineering and Science Club</i>	Sept. 2022 – June 2025
• Managed all club finances including membership fees and material costs through spreadsheeting	St. Augustine CHS, Markham, ON
• Oversaw the collection of approximately \$1,000 worth of fees and subsequent budgeting of revenue	

PROJECTS

AlphaBL-Portfolio Creation and Optimization Model <i>Python, yfinance, PyPortfolioOpt, NumPy, Pandas</i>	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 <i>Python, XGBoost, Pandas, NumPy</i>	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 <i>Python, TensorFlow, Matplotlib, NumPy, Pandas</i>	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 <i>Java, SuperSocketMaster, OOP, Swing, JavaFX</i>	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)