Eduardo Puerta

(he/him/his)

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EDUCATION

St. Lawrence University, Canton, NY — Anticipated May 2022
Bachelor of Science — Current GPA: 3.949/4.000
B.S. in Computer Science — Major GPA: 4.000/4.000
B.S. in Mathematics — Major GPA: 3.979/4.000
Honors: International Davis Scholarship. Dean's List (Fall 2018- Present). Pi Mu Epsilon Math Honors Society, Omicron Delta Kappa Leadership Honor Society

Li Po Chun United World College, Hong Kong SAR — May 2017
International Baccalaureate Bilingual Diploma
Honors: Partial Merit Scholarship (2015-2017)

RESEARCH INTERESTS

- Graph Theory
- Theoretical Computer Science, Algorithms, Complexity Theory
- Programming Languages and Software Engineering

RESEARCH EXPERIENCE

Senior Year Experience Honors Thesis, St. Lawrence University — Fall 2021-Present
Title TBD
Advisor: Dr. Daniel M. Look

- Designed an original research project under the mentorship of Dr. Daniel Look that examines the connection between planar graph representations of mathematical knot projections and invariants of that knot such as p-colorability

Summer Research Fellowship, St. Lawrence University — Summer 2020
Designing a Data Visualization Program for The Admissions Office Email Campaigns
Advisor: Dr. Choong-Soo Lee

- Developed a web application data dashboard with the Django framework in Python for email campaign data for the Admissions Office at St. Lawrence University
- Analyzed, reorganized, and stored admissions data with the pandas and NumPy libraries in python
- Researched software development architecture and design frameworks to evaluate best fit for the program
- Elaborated complementary content including video demos to communicate the capabilities of the application

CS 318: Graph Theory, St. Lawrence University — Fall 2020
Pokémon Graphs: Finding Optimized Dual-Type via Graph Theory
Instructor: Dr. Patti Frazer-Lock

- Modeled elemental type matchups for the Pokémon battling system via directed bipartite graphs and graph tournaments
- Evaluated metrics to define most effective combinations of types for offensive and defensive scenarios

TEACHING EXPERIENCE

Academic Advising*, Peer Tutor*, St. Lawrence University, NY — Sept 2021 – Present

- Mentor two students in personalized sessions for Data Structures and Techniques of Computer Science
- Guide discussions around abstract concepts in computer science allowing students to better understand the motivation behind specific programs

Peterson Quantitative Resource Center*, Mentor*, St. Lawrence University, NY — Aug 2020 – Present

- Aid students in understanding quantitative concepts for classes in Computer Science, Mathematics and Statistics both in-person and online mentoring

- Assist students throughout the code debugging process, highlighting areas to improve the quality, readability, and correctness of their code
- Facilitated two review workshops for Chemistry and Biology students to sharpen their mathematical tools in trigonometry, algebra, and unit conversions
- Designed and led a LaTeX workshop to introduce software to incoming students
- Maintain a coffee station for tutors by coordinating with staff and mentors, and finding donations to the center

WORK EXPERIENCE

Residence Life, *Community Assistant,* St. Lawrence University, NY   Jan 2019 - Present
- Develop active and passive community programs to empower residents in three residential communities
- Serve as a resource for academic and emotional support within the residence halls
- Collaborate with paraprofessional staff to monitor four residential buildings and ensure student safety
- Serve as a liaison between facilities, residential staff, and community members
- Recognized as *Rookie of the Year* and *Best FYP Community Builder* in the 2019-2020 academic year

Admissions and Financial Aid - *Multicultural Admissions Ambassador,* St. Lawrence University, NY   Jan 2019 - May 2021
                                    - Admissions Summer Intern, St. Lawrence University, NY   Jun 2019 - Aug 2019
- Encouraged prospective students to attend the university by guiding them in personalized tours
- Drafted 100+ handwritten letters to market academic and social experiences at the university
- Managed administrative operations including finalizing work orders, recruiting diverse clubs, and offering support in a Multicultural Event each semester
- Composed blog posts for the university website highlighting personal anecdotes and student culture
- Calculated yields for the department's student workers using Excel to collect and summarize the data
- Developed an Excel report extracting email delivery data on the 2018-2019 admissions cycle
- Designed a Java Program to summarize and automate email campaign data recollection and visualization
- Led bonding events and worked as a student ambassador in a send-off event in Greenwich, CT
- Compiled information on high schools in the Northern New York for a selective scholarship program

Teleperformance, *Captioning Agent,* San Jose, Costa Rica   Jan 2018 - Apr 2018
- Captioned calls verbatim to facilitate the communication of hearing-impaired clients
- Trained a voice recognition AI in a fully English working environment

CAMPUS LEADERSHIP

Pi Mu Epsilon Mathematics Honor Society, *President*, St. Lawrence University, NY   Sept 2021 – Present
- Planning a Mathematical Art Exhibition for the Spring of 2022 in collaboration with the Peterson Quantitative Resource Center and faculty in the Math, Computer Science and Statistics Department
- Coordinated the induction of new members by acquiring necessary application materials, organizing schedules, and delivering the induction speech

Ultimate Frisbee Club *- President,* St. Lawrence University, NY   July 2021 – Present
                          - Secretary, St. Lawrence University, NY   May 2019 – July 2021
- Conduct near-daily practices consisting of drills and games to aid in the athletic development of the team and its members
- Coordinate scrimmages, tournament travel, and accommodation for the team during away games
- Pioneered initiative to acquire communal reversible pinnies to increase the accessibility of our uniforms and accommodate a more inclusive team environment
- Drafted weekly emails delineating upcoming events and practice times
- Organized promotional events including tabling, club fair, and a gift to the University President
- Represented the club in STAY Active panels designed to introduce campus clubs to prospective students
- Administered the team's Instagram account, creating content and scheduling weekly posts

La Sociedad (Hispanic Society), *Senator,* St. Lawrence University, NY   May 2019 - May 2020

- Recorded meetings and events by taking minutes and developing an Excel calendar of events
- Represented the Hispanic Society in monthly meetings with other clubs of historically underrepresented identities
- Collaborated in fundraising events supporting children of immigrant families and deforestation in South America

RELEVANT COURSES

- Computer Science
  - CS 220: Computer Organization
  - CS 250: Problem Solving Seminar
  - CS 318: Graph Theory
  - CS 340: Independent Study Software Engineering
  - CS 352: Machine Learning (Spring 2022)
  - CS 362: Independent Study Algorithm Analysis
  - CS 364: Programming Languages
  - CS 389: Independent Study Artificial Intelligence
  - CS 450: Cybersecurity Seminar (Spring 2022)
  - CS 380: Theory of Computation (audit)
  - CS 3012: Game Development

- Mathematics
  - MATH 217: Independent Study Linear Algebra
  - MATH 230: Differential Equations
  - MATH 306: Complex Analysis
  - MATH 316: Ring Theory
  - MATH 325: Probability
  - STAT 326: Mathematical Statistics
  - MATH 370: Topology (Spring 2022)
  - MATH 498: Senior Honors Project

TECHNICAL SKILLS

- Programming Languages
  - Proficient in Python, Java, and LaTeX.
  - Familiar with C#, C, Reason, Bash, and R.
- Certificates
  - Certification for Excel Levels I and II from New Horizons
  - Bloomberg Market Concepts (BMC)

LANGUAGES

- Spanish (Native)
- English (Fluent)