Elijah Raul Rodriguez Beltran

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Education

The University of Illinois at Chicago (UIC)
- **Bachelor of Science in Computer Science**
- ***Graduation****: May 2022*   ***GPA****: 3.82*

President's Award Program Honors Scholar at UIC
- *Full ride scholarship to the University of Illinois at Chicago*

Guaranteed Professional Program Admissions
- *Guaranteed admission to the graduate program in computer science at UIC upon undergraduate graduation*

Projects

Personal Project: Bike Safety Optimizer   *July 2019-Ongoing*
- *Utilized Dijkstra's Algorithm on Chicago public street data to optimize the safety of a bike lane-based route*
- *Environment: Visual Studio   Languages: C++*

Research: Data Mining Twitter for Disaster Relief   *September 2019-Ongoing*
- *Utilized natural language processing and Naive Bayes classifiers to identify urgent and actionable requests for aid on Twitter in the event of a hurricane with 75% accuracy.*
- *Environment: PyCharm   Languages: Python   Libraries: NLTK, Scikitlearn*

Class Project: Morra Game   *April 2020*
- *Based on UML diagrams, utilizing multi-threading and socket programming to develop a real-time, multi-client game along with a graphical user interface for both the server and the players*
- *Environment: Intellij   Languages: Java*

Class Project: Electoral College Subset Sum Calculator   *October 2019*
- *Given an input of target electoral votes, utilized dynamic programming to calculate information about the minimum subset needed to reach target votes in $O(nT)$: T being the target and n being the 51 voting districts)*
- *Environment: Visual Studio   Languages: C++*

Technical Knowledge

- Experience in C/ C++, Python, Java, F#, SQL
- Proficient in the use of GDB debugger, Valgrind, unit testing utilizing Catch framework and JUNIT5

Relevant Coursework

Software Design I   *January 2020-Ongoing*
- *Introduction to Java design patterns, UML diagrams, socket programming, AGILE development, threading*

Computer Algorithms I   *January 2020-Ongoing*
- *Developed an understanding of sorting and graph algorithms as well as an introduction to dynamic programming*

Data Structures and Algorithms   *August 2019- December 2019*
- *Designed various standard data structures (vectors, BSTs) and implemented them in two other projects*

Professional Activities

MentorSHPE : *Co-Chair*   *June 2019-Ongoing*
- *Organized 13 mentoring "familias" and provided over 70 members 3 professional workshops*

Logica: *Board Member*   *January 2019-Ongoing*
- *Organized an event on for over 20 attendees on project management and life outside of a traditional technical role*
- *Handle all regular communications through email and Slack with the general body*

Society of Hispanic Professional Engineers at UIC (SHPE): *Board Member*   *September 2018-Ongoing*
- *Volunteered for outreach events, including Noche De Ciencias, where I led 25 students through various STEM activities*

Experience

Minority Engineering Recruitment and Retention Program   *January 2019-Ongoing*
- *Tutor UIC students in Calculus 2, utilizing communication to assist over 5 consistent students*

UIC CHANCE Tutoring   *February 2019-February 2020*
- *Tutor nearly 60 at-risk high school youth in math, utilizing strong instructional skills and mathematical concepts*