CHRISTOPHER POON

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Education

Bachelor of Science	**Rensselaer Polytechnic Institute**	*Troy, NY*	**08/2022 - Present**

- Relevant Coursework: Design & Analysis of Algorithms, Introduction to Algorithms, Foundations of Computer Science, Principles of Software, Data Structures, Computer Organization, Computational Vision, Cryptography & Network Security I, Introduction to Artificial Intelligence, Multivariable Calculus, Linear Algebra

	Brooklyn Technical High School	*Brooklyn, NY*	**08/2018 - 06/2022**

- Major in Software Engineering
- Relevant Coursework: AP Calculus BC, Digital Electronics, IT & Big Data, Web Development & Cybersecurity

Skills

- C | C++ | Python | NumPy | OpenCV | MIPS | R Studio | SQL | NI Multisim | React | Java

Experience

Summer Rising Group Leader	**Kings Bay Y**	*Brooklyn, NY*	**07/2023 - 08/2023**

- Tasked with the guidance, instruction, supervision, and care of over a total of 20 middle school campers for a newly developed program, transporting campers to and from at most 5 different locations around the borough using school buses
- Followed a strict 5 hour schedule with constant communication with colleagues and supervisors to ensure satisfaction of campers
- Designed counselor-led activities for the campers every week for multiple subjects in case the professionals were absent

Tutor	**Gifted Reading and Math Center**	*Brooklyn, NY*	**09/2019 - 07/2022**

- Supervised children from grades 1-12 on their self-paced studies in math and reading, answering their questions while also providing opportunities for 1-on-1 discussions, improving the students' overall academic performance
- Managed the students' homework and in-class assignments in a timely fashion, often assisting other tutors that were struggling

Projects

Developer	**IBM Ceph**	*Troy, NY*	**08/2023 - 12/2023**

- Introduced an additional option to a status command, using Python, to furnish users with insights into the precise actions undertaken by the Balancer module during its latest iteration, more specifically the redistribution of Placement Groups to optimize storage
- Created comprehensive documentation concerning issues in the setup and build of Ceph on a local environment

Developer	**MIPS Simulator in C**	*Troy, NY*	**04/2023**

- Implemented multiple C functions simulating circuitry such as Arithmetic Logic Units and utilized control bits for specific MIPS Instructions, adding more for newly implemented jump instructions, for the purpose of processing a list of assembly instructions
- Designed a datapath model to mirror the newly implemented jump instructions as well as additional circuitry

Developer	**Animal Genome Size Dataset**	*Troy, NY*	**04/2023**

- Utilized R to work with over 800 entries of mammals in a dataset, filtering down to 8 families and plotting them on a bar graph to compare their genome sizes, answering the question of how genome size varies across different species
- Compared megabase pairs with chromosomes using linear regression statistics to indicate a positive correlation between the two

Lead	**State Machine Circuit**	*Brooklyn, NY*	**05/2022**

- Implemented a state machine design that has 9 different states to display 2 different 7-letter words, "various" and "promise", on a common cathode seven segment display using Multisim
- Designed a state graph to visualize the transition between states and created Karnaugh maps to calculate Sum Of Product expressions

Developer	**World Happiness VS Cost of Living Index**	*Brooklyn, NY*	**04/2022**

- Queried over 2 different databases using SQL to observe a correlation between world happiness and the cost of living index
- Designed an entity relationship diagram to portray the relationships between the two databases and their primary keys
- Documented the project planning using agile methodology via Trello boards