

# Jonathan Marcantonio

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## EDUCATION

### University of Toronto

Sep 2019 – Apr 2023

*Honours Bachelor of Science, Computer Science Specialist*

*Mississauga, ON*

- **Relevant Courses:** Software Design (Java), Data Structures and Analysis (Python), Software Tools and Systems Programming (C, Bash), Computer Organization (MIPS Assembly)

## EXPERIENCE

### Trillium Health Partners

Aug 2020 – Nov 2020

*OneTHP Support Staff*

*Mississauga, ON*

- Provided one-on-one guidance to physicians, nurses, and other staff during Trillium Health Partner's implementation of their new Hospital Information System, *EPIC*
- Accelerated patient registration time by **40%** via in-person and remote troubleshooting
- Filed help tickets upon request of health personnel in a remote service role

### Game Server Founder/Owner

Nov 2013 – Oct 2017

*Cookie Craft Prison*

- Generated sales of over **\$30,000**
- Launched (at age 12) a successful game server of over **33,000+** unique players
- Assessed and troubleshooted billing issues for over **2900** transactions
- Built a game server on top of the wildly successful game, *Minecraft*

## PROJECTS

### WikiLink | *MongoDB, Express.js, React.js, Node.js*

[View Project](#)

- Built a full-stack web application in JavaScript that “extends” any link using a random wikipedia article
- Integrated data from Wikipedia's MediaWiki API to load content from a random article
- Utilized a MongoDB database to fetch and redirect “extended” urls to their correct destination

### IEEE-754 Converter | *Java, JavaFX*

[View Project](#)

- Created a program to convert between IEEE-754 2008 representation of 32 bit values and decimals
- Incorporated JavaFX to create a reactive GUI interface following MVC design principles
- Leveraged GitHub to effectively work with 2 other teammates

### Memories | *Node.js, Discord.js, Heroku*

[View Project](#)

- Developed a Discord Bot to simplify the process of finding messages
- Actively being used in over 50 Discord Servers servicing over 5000 users

### XModem Server | *C, Bash, gdb, valgrind*

- Designed a server for the file transfer protocol, XMODEM
- Implemented support for both 128 and 1024 byte data packets
- Integrated various UNIX system calls such as `select()`, `bind()`, `listen()`, and `socket()`

### Huffman Coding Compression | *Python*

- Developed an efficient lossless compression/decompression algorithm utilizing Huffman trees

## TECHNICAL SKILLS

**Languages:** Java, JavaScript, Python, C, HTML/CSS, Haskell, Racket, MIPS Assembly

**Technologies:** React.js, Node.js, Express.js, JavaFX

**Tools:** Git, Linux, Bash, L<sup>A</sup>T<sub>E</sub>X, Netlify, Heroku, MongoDB

## ACHIEVEMENTS

### Learning Excellence

University of Toronto

*CSC258 - Computer Organization*

*2021 Winter*

### Dean's List Scholar

University of Toronto

*Cumulative GPA of 3.50 or higher after completion of first year*

*2019 – 2020*

### U of T Mississauga Guaranteed Entrance Scholarship

University of Toronto

*Merit based scholarship awarded to students with academic excellence*

*2019*