

# RAMAN MANGLA

Computer Engineering Student at the University of Toronto

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## EXPERIENCE

### Web Development Lead, UofT Engineering Stores

Toronto, June 2019 - Present

- > Developing and deploying a Django and MySQL based e-commerce platform with PayPal integration for textbook and merchandise sale
- > Created high fidelity prototypes for the website redesign for a modern brand identity
- > Integrated WooCommerce shopping cart and PayPal Checkout on the existing WordPress.org (PHP) website

### Software Engineering Intern, Publicis Sapient

Toronto, June 2019 - August 2019

- > Reduced the testing time for Adobe Analytics website integrations by 40% by developing a Python application and a Google Chrome extension in JavaScript
- > Validated click-stream data by scraping websites, automating checkout forms and page events and parsing server requests
- > Developed web-accessible front-end experiences for \$1 billion+ clients as part of an Agile engineering team using React and JavaScript ES6

### Software Development Intern, Ericsson Global

New Delhi, July 2018 - August 2018

- > Developed a Flask (Python) and SQLite based dashboard to automate monitoring of internal virtual machines and user access
- > Reduced build interruptions and accidental machine access by 70% through an email-based permission system for users
- > Leveraged knowledge in JavaScript, Bash scripts, AJAX and full stack development

## RECENT PROJECTS

### FunNight Geographical Information System (C++)

- > Worked in a team of 3 to develop a multi-threaded C++ based GIS to map cities and plan a night out at clubs, restaurants and theatres using GTK graphics library
- > Integrated Yelp API to filter nearby points of interest according to costs and distance
- > Implemented Dijkstra and A\* algorithms for providing optimal travel directions
- > Solved Traveling Salesman Problem for vehicle routing using simulated annealing

### Trendr Analytics Platform (Python & JavaScript)

- > Built an analytics platform to provide personalized marketing insight for leveraging social media influencers and trends using React, Chart.js and a Flask RESTful API
- > Curated influencers by creating a recommendation system built on Twitter API data using Python Pandas and IBM Watson Natural Language Processing engine

### Other Projects

- > Raycasting 3D Render Engine for 1993's Doom video game built in C++
- > YouTubeSync application to sync videos on multiple clients using WebSockets and Node.js
- > Cloud Contact Storage application using React, MongoDB, Node.js and Express

## TECHNICAL SKILLS

### Programming:

C, C++, Python, JavaScript, ARM Assembly, SQL

### Web Development:

HTML, CSS/Sass, jQuery, React, Django, Flask, Node.js, Express, WordPress

### Design:

Adobe CC (Illustrator, Photoshop, InDesign), Figma

### Tools & Others:

Linux, Git, MATLAB

## EDUCATION

### University of Toronto (St. George)

Bachelor of Applied Sciences in Computer Engineering with Artificial Intelligence minor  
September 2017 - Present

- > Cumulative GPA - 3.58 (4)
- > Achieved Dean's Annual Honours List 2017-18
- > Awarded Faculty of Applied Science and Engineering Admission Scholarship

### Current Courses:

Data Structures and Algorithms, Probability, Control Systems, Computer Networks, Operating Systems, Databases, Artificial Intelligence

### Completed Courses:

Programming (C++), Digital Systems (Verilog), Computer Organization, Signals and Systems, Calculus, Linear Algebra

## LEADERSHIP

### Sales Associate, UofT Engineering Stores

May 2019 - Present

### Layout Director, The Cannon Newspaper

September 2018 - Present

### Graphics Director, UofT Robotics Association

September 2018 - April 2019

### Other Interests:

Lawn Tennis, Guitar, Reading