

DANIIL ZHILYAYEV

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TECHNICAL SKILLS

- **Languages:** Python, C, Scheme/Racket, SQL, R, HTML/CSS
- **Libraries:** NumPy, SciPy, Pandas, Matplotlib, Flask, OpenCV, FFTW, CTypes
- **Tools/Environments:** Git, Vim, JetBrains IDEs, gdb, CMake, Tableau, Microsoft Excel

EXPERIENCE

Hover Hub

Toronto, ON

Software Engineer

Jun 2019 – Sep 2019

- **Algorithm Analysis:** Independently constructed algorithms for the purpose of testing pre-existing back end elements using C, accomplished to identify errors within the program and resolve the previously found issues.
- **Code Efficiency:** Performed quantitative analysis within the program, ensured scalability of front-end elements by optimizing them for loading speed and performance, achieved to cut the program run time by 30%.
- **Digital Interface:** Re-engineered designer's wire frame into website elements while adapting to a framework known as Flask, ensured reliability, security, and comprehensibility of the source code through documentation.
- **Affordable Execution:** Worked with a strict budget to utilize/integrate most lucrative software and hardware application methods. The provided research helped the brand save a total of 15% on inventory and licensing fees.

Firefly, Inc

Richmond Hill, ON

Digital Marketing Specialist

Dec 2019 – Mar 2020

- **Data Collection:** Actively mined data from the company's database using SQL to offer optimization and improvement in product development, marketing strategies, and business techniques.
- **Statistical Analysis:** Accumulated sales data using web traffic metrics such as link popularity, click-through rates, and cost-per clicks. Successfully delivered the gathered research through a presentation and comprehensive analysis done in R. Discovered various trends and relationships between user location, price of the product, targeted age group, and population density.
- **Automated Modeling:** Held responsible for updating ineffective marketing models using customer feedback and user inactivity as indicators. Generated a successful email funnel by applying a sorting algorithm in Python, which served as a catalyst for growth in revenue by 10% yearly and higher user volume on the website.
- **Search Discernibility:** Built, implemented, and updated effective SEO strategies to gain more traffic on the website. Utilized the crawlability for search engine indexing, ultimately boosting the monthly web traffic by 20%.

PROJECTS

Hospital Management System: Enables the hospital to create, update, delete, and search for patients' record.

- Developed a responsive, efficient, and well organized hospital management system using C - CLion environment.
- Prototyped a user friendly design for the system registration, provided documentation for comprehensibility.
- Applied a custom algorithm based on inclusion-exclusion principle to avoid redundancy from requested data.

Calculator GUI & Sudoku Algorithm: Given user input the algorithms provides a solution to any valid entry.

- Designed and architected a unique graphical user interface for the calculator application using Tkinter.
- Built a custom Sudoku solving algorithm, while maintaining code efficiency within the PyCharm environment.
- Ensured consistency in execution time regardless of the puzzle complexity by optimizing the algorithm.

EDUCATION

University of Waterloo

Bachelor of Mathematics, Data Science

Term Average: 92%

Expected Graduation: 2025