PRATYUSH PAL

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SKILLS

Languages: Python, JavaScript, C++, R, PHP, SQL, C, HTML5, CSS3, MATLAB, Mathematica

Technologies & Frameworks: THREE.js, Scikit-Learn, Kivy, OpenCV, NumPy, Pandas, Git, Node.js, React Native

EXPERIENCE

Tulip Retail, *FullStack Developer*, Toronto — Sep 2017 - Dec 2017

- Worked on an e-commerce website that generates 50 million in yearly revenue with over 2 million users
- Customized the checkout process to account for heavy trafficking during Black Friday
- Crafted a tool for order tracking by utilizing the UPS and Canada Post APIs
- Utilized compression algorithms, reduced image query time and increased site-speed by 40% for SEO
- Integrating google re-marketing analytics and modifying product metadata for web parsers to improve BI

UW Blueprint, *Project Developer*, Waterloo — May 2017 - Current

- Building native and web applications for non-profit organizations
- Worked on an iOS app called BeyHive for Friends of the Earth to aid research about bee species
- Developed an offline-first cross-platform mobile app in React Native for WWC Groundwater Festival

Creative School of Math and Music, *Teaching Assistant*, New Delhi — Apr 2015 - May 2016

- Lectured 20 students from grade 4-12 aimed to build intuition about complex mathematical ideas
- Provided relevant course material and helped improve the class average by 20%

PROJECTS

Electric City Hacks - Best Machine Learning Hack — Nov 2017

- Developed an interface called Stutter.io to aid speech and avoid stuttering through positive reinforcement through speech recognition using JavaScript's native Web Speech API
- Used an SVM model to classify stutters from user's speech and learn stutter syllables, words and recommends synonyms
- Integrated gesture control through Leap Motion to dynamically replace stutter words with synonyms in the speech transcript

Bloomberg Code B - 2nd Place — Feb 2017

- Built a Python AI within a 12 hour frame to play Bloomberg's Base Invaders asteroid game
- Utilized vector math and game theory to double the score of nearly every other team per round

HackWithIX - 2nd Place — Nov 2016

- Developed an algorithm in JS based on Q learning to optimize ad auction floor rates
- Designed a dashboard to visualize the difference between the profit earned by static and dynamically determined auction floor rates

EDUCATION

University of Waterloo

Candidate for Bachelor of Mathematics, Class of 2021

Majoring in Combinatorics & Optimization and Statistics