

Darren Cao

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TECHNICAL SKILLS

Languages: C/C++, Java, C#, Ruby, Python, JavaScript, HTML, CSS, SQL **Tools:** git, bash, vim, IDEs
Frameworks: Ruby on Rails, React, NuclearJS (Flux), .NET, AngularJS, jQuery, Bootstrap, Android

EDUCATION

University of Waterloo – Bachelor of Software Engineering *Sep 2013 – present (class of 2018)*
- Cumulative Average: 87% (**3.9/4.0 GPA**) – **Top 10** in class, Dean's Honors List

EXPERIENCE

Riviera Partners – Full-Stack Developer (Ruby on Rails, React) *San Francisco, CA (May 2016 – Aug 2016)*
- Unified external mailboxes with the matching platform, allowing recruiters to manage their emails and message candidates and clients within the native application context, increasing core productivity by 20%
- Added employment wins feature used on all profiles to measure achievements based on company success
- Rewrote notifications handling architecture to enable different user groups to control their preferences
- Fixed issues with Elasticsearch indexing and Sidekiq job processing, increasing scalability and reliability
- Improved agile and coding practices by setting up seeded development environments and RSpec unit tests

DBRS Limited – Full-Stack Developer (C#, AngularJS) *Toronto, ON (Sep 2015 – Dec 2015)*
- Built the rating checklist workflow used by all analysts to ensure compliance with each regulatory step
- Designed analytics dashboard for tracking methodologies, powering insight into effective credit analysis

Ultimate Software – Applications Developer (JavaScript, HTML, CSS) *Weston, FL (Jan 2015 – Apr 2015)*
- Created an interactive page-scraper allowing non-technical users to generate Selenium tests; released internally to the testing team and managed hotfixes, support, and successful iterations based on feedback

Toronto Hydro – Systems Engineer *Toronto, ON (May 2014 – Aug 2014)*
- Designed and implemented scripts to synchronize internal company database with financial application

PROJECTS

Snapfilters – C++, OpenCV, OpenGL *<https://github.com/dcaoyz/snapfilters>*
- Researched and implemented Snapchat-like filters using computer vision and graphics libraries in C++
- Created effect overlays by generating a face mesh through Haar Cascades and applying textures on top
- Tracked gestures using expression classifiers to trigger filters on customized events

ICUbot – C#, Node.js *<https://github.com/ICUbot>*
- Built an interactive surveillance robot that chases intruders; **\$5k Microsoft Prize Winner** at HackPrinceton
- Implemented pathfinding algorithms using sensor data and integrated social media for sharing live updates

Jane Street: Algorithmic Trading Competition – Java *<https://github.com/dcaoyz/janestreetetc>*
- Designed adaptive, real-time algorithms applying arbitrage strategies in a market simulator; placed **Top 8**

MNIST Reader – Python *<https://github.com/dcaoyz/mnistreader>*
- Classified a computer vision dataset of handwritten numbers through novel machine learning techniques