KASHAV MADAN

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EDUCATION

University of Toronto, H.B.Sc., Computer Science & Mathematics   Sep 2015 – Apr 2019

WORK EXPERIENCE

Mozilla, Software Engineering Intern   May 2018 – Aug 2018

- Contributed to a Gecko compositor component responsible for handling asynchronous panning and zooming
- Improved **fixed-position compatibility** in **Firefox for Android** by adjusting where elements are painted initially and how their asynchronous transformations are computed (i.e., how they respond to scrolling and zooming)
- Debugged and fixed various **failing reference and behaviour tests** related to **compositor/layout code**
- **Identified multiple bugs** in an automation suite responsible for running tests in chaos mode, allowing Firefox developers to catch intermittent bugs and breakages earlier and more reliably

UofTHacks, Organizer & Lead Developer   Sep 2016 – Present

- Manage developer team to build and ship portal system for hackers, sponsors, and administration
- **Lead and contribute** to the development of core components, including hacker/sponsor registration, application management, check-ins, judging dashboards, and more
- Build and maintain **robust automation scripts** for periodic backups, deploys, and data aggregations

UofT Entrepreneurship Hatchery, Software Developer   Sep 2016 – Apr 2017

- Contributed to the development of a dashboard platform used by administration and start-up teams
- Led overhaul of a large PHP codebase leveraging **modern microservice patterns** for increased modularity and sustainability, with services for registration, team-matching, migrations, and more
- Introduced a reliable deployment process into the workflow with **multiple staging environments** and **automated deploys**

Ontario Public Service, Junior Web Developer   May 2016 – Aug 2016

- Contributed to the development of an enterprise-wide Intranet platform serving over 150,000 daily users
- Added a **cache layer** to the web API using **Redis** to significantly reduce page-load and server response times
- Optimized **Elasticsearch** implementation with various caching mechanisms to **increase search speeds by over 25%**

SELECTED PROJECTS

fsql – https://github.com/kshvmdn/fsql   2017

- A **parser and interpreter** with an SQL-inspired syntax for **querying large filesystems**, written in Go
- Reached top post on HackerNews and trended on GitHub with **3,400+ stars** and **90+ forks**

Cobalt / UofT Scrapers – https://github.com/cobalt-uoft   2016

- Collection of **open data APIs** to interface with public information from the University of Toronto
- Contribute to open source development and maintenance of **Node.js API** and **Python web scrapers**
- Used by multiple teams each semester in project-based courses: CSC301 (Software Eng.) and CSC309 (Web Programming)

nba.js – https://github.com/kshvmdn/nba.js   2016

- Set of **Node.js APIs** for interfacing with player and game data, developed by **reverse-engineering NBA.com network requests**
- Trended on GitHub with **250+ stars** and **20+ forks**

SKILLS

- Fluent in JavaScript, Go, Python, and Java
- Experienced with C, C++, Bash, Ruby, and Rust
- Tools and Technologies: Linux/Unix, Git/Mercurial, MySQL/PostgreSQL, MongoDB, Redis, React, Docker, AWS