KASHAV MADAN

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http://kshvmdn.com   https://github.com/kshvmdn   https://linkedin.com/in/kshvmdn

EDUCATION

B.Sc., Computer Science & Mathematics, *University of Toronto*   Expected May 2019
Relevant courses: Algorithm Analysis, Data Structures, Operating Systems, Intro. to AI, Number Theory

WORK EXPERIENCE

Software Developer, *UofT Entrepreneurship Hatchery*   Sep 2016 - Mar 2017
- Contributed to development of Dashboard platform used by Hatchery members
- Led overhaul of large PHP codebase to leverage modern **RESTful patterns** with **microservice-based** model, including services for **team-matching** and **database replication**
- Rewrote expensive **team-matching algorithm** by incorporating **graph-based solution**
- Introduced reliable **deployment process** into workflow with **multiple staging environments**; managed various developer tasks including version control, code reviews, and production backups

Web Developer, *Ontario Public Service*   May 2016 - Sep 2016
- Contributed to development of enterprise-wide Intranet web platform serving over 40,000 daily users
- Added **cache layer** to web API using **Redis** to significantly reduce page-load and server response times
- Optimized **Elasticsearch** implementation to **increase search speeds by over 25%** by utilizing various **caching mechanisms** for heavy aggregations

Software Developer, *App Mastery*   May 2016 - Sep 2016
- Utilized web technologies to build native video-streaming applications for Samsung & LG Smart TVs
- Added support for **video ads** with a **subscription-based payment model** using the Stripe API
- Implemented webhook-based **point-and-click analytics** with Google Analytics
- Introduced modern JavaScript to team and **led transition of large codebase** from ES5 to ES6+

SELECTED PROJECTS

fsql, https://github.com/kshvmdn/fsql   2017
- An **SQL parser, interpreter, and evaluator** written in Go for querying large filesystems
- Reached top post on HackerNews and trended on GitHub with **3,400+ stars** and **90+ forks**

rdrp, https://github.com/kshvmdn/rdrp   2017
- AirDrop-inspired tool for sending and receiving files over a local network
- Uses **zero-configuration networking** (mDNS) to enable **server-less transfer functionality**

Cobalt / UofT Scrapers (collaborator), 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 Python web scrapers and Node.js API

nba.js, https://github.com/kshvmdn/nba.js   2015
- **Reverse-engineered** NBA.com client-side requests to expose a **set of Node.js APIs** to interface with player and game data
- Trended on GitHub with **200+ stars** and **20+ forks**

SKILLS

Languages   Go, Node.js / JavaScript, Python, Java, C, PHP, Ruby (Rails), SQL / NoSQL, Shell

Technologies/Tools   Git, MongoDB, Redis, PostgreSQL, Docker, Kubernetes, AWS (EC2, S3, RDS)

VOLUNTEER EXPERIENCE

UofTHacks (Lead Developer), **UofT Web Development Club** (Webmaster), **University of Toronto, Dept. of Computer Science** (Ambassador)