Ted Ying   ted@yingted.com   (647) 624-1168   github.com/yingted

WORK EXPERIENCE

Software Engineer Intern, Facebook   Sep. – Dec. 2017 (anticipated)   Menlo Park, CA
- Worked with Zookeeper

Developer Intern, Jane Street Europe Limited   Jan. – Apr. 2017   London, UK

Software Engineering Intern, Google   May – Aug. 2016   Mountain View, CA
- Implemented resizing, synthesizing, quantizing, and serving images with transparency in Images infra

Software Engineer Intern, Dropbox   Sept. – Dec. 2015   San Francisco, CA
- Built service for efficient summaries (histograms, heavy hitters, etc.) over subsets of time series
- Hack project: Service which converts *Neko Atsume: Kitty Collector* screenshots in Dropbox to tabular and chart format using pandas, OpenCV, and R.

Developer, Bloomberg   Jan. – May 2015   New York, NY
- Developed recommendation engine in Python and C++

Full-stack Engineering Developer, Remind101   May – Sept. 2014   San Francisco, CA
- Wrote new message sender, which has processed over half a billion events for 7 communication services and 3 encodings
- Added end-to-end Unicode support (e.g. for accented characters and emoji)
- Implemented Kafka and Zookeeper consumer partition rebalancing protocol in Node.js
- Worked on AngularJS front-end
- Implemented optimizations reducing page load time from 13 s to 5 s for users on slow connections
- Authored a metrics service capable of 360,000 requests per minute on Heroku's free tier

Undergraduate Research Assistant, University of Waterloo   Jan. – Apr. 2014   Waterloo, ON
- Developed fluid animation simulator using spatial data structures based on regular triangulations
- Checked algorithm correctness using CGAL (exact computational geometry in C++ templates)

Developer, Weinreb Ventures   June – Aug. 2013   Mississauga, ON
- Added form validation and input sanitization

Head of Technology, Multiple Sclerosis Mississauga YC   Sept. 2012 – June 2013   Mississauga, ON
- Created a website for event information using Django on Google App Engine

SKILLS

- Languages: **Python, JavaScript, Java, C, Bash**, C++, **HTML**, **SASS**/**CSS**, and **Lua**

ACTIVITIES AND INTERESTS

- Competitive algorithmic programmer:
  - ACM ICPC team placed second in East Central North America 2015 and 2016
  - Google Code Jam Online Round 2 Qualifier 2014-2017 (username: `yingted`)
  - Two times Silver Medallist (top 10 in Canada) in the Canadian Computing Competition
  - ECOO team placed first in Ontario
- Currently working on lane detection for WATonomous (SAE AutoDrive Challenge team)
- Ran in-school programming competitions for high school computer science club

- ◦ Ported Turing language VM and runtime (written in C) to GNU/Linux
- ◦ Designed and developed online grader for practice CS competitions
  - ▪ Uses ACE (editor), jQuery, Python, LXC (virtualization), and libseccomp (sandbox)
- ◦ Tron game server, clients, example bots, and game recording viewer
  - ▪ Uses Twisted (Python evented networking), and Shed Skin (compiler)
- Participated in FIRST Robotics Competition
- Interests: reading, skating, and skiing

EDUCATION

Candidate for Bachelor of Software Engineering, University of Waterloo

Sept. 2013 – present   Waterloo, ON

- Prize-winning compiler, featuring self-extracting code, 3 – 4 times more compact than the second-best
- Developed an IR sensor driver using high dynamic range for robot navigation

High School Diploma, The Woodlands School   June 2013   Mississauga, ON

- Implemented and optimized a 3D renderer in the Turing language