Volodymyr Lyubinets
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github.com/vlyubin

I'm a computer scientist interested in algorithms, distributed systems and data science.

Work experience

Software Engineer, **Databricks**, San Francisco / Amsterdam   *January 2016 – Now*

- Designed and implemented new features for the pricing service, created initial version of internal access tool, contributed to deployment infrastructure.
- Interviewed over 20 candidates, contributed new problems to hiring process, gave external talks about Spark.

Software Engineering Intern, **Databricks**, San Francisco   *January – April 2015*

- Made major extensions to the data import functionality of the Databricks platform.
- Wrote most of Avro connector for Spark (github.com/databricks/spark-avro, 300+ stars).
- Implemented and benchmarked performance optimizations for Apache Spark, speeding up conversions between RDDs and dataframes by a factor of 2.

Software Engineering Intern, **LinkedIn**, Mountain View   *January – April 2014*

- Improved candidate recommendations for recruiters. Extended existing model with new features coming from recruiters search data. Implementation in Java with Hadoop MapReduce.
- Extended internal chart-drawing library based on Google Charts. Two hackathon projects: quiz about your network; internal marketplace for employees (organized a team of 6 interns).

Software Engineering Intern, **Facebook**, Menlo Park   *May – August 2013*

- Implemented extensions for the Ads Manager in C++ and Python.

Research Assistant, **UW Graphics Lab**, Waterloo   *September – December 2012*

- Worked on shape synthesis: given a sample set of 2D shapes, generate a variety of new distinct shapes that have the same structure as the samples. Presented my results to the lab.

Software Engineering Intern, **Minted**, San Francisco   *January – April 2013*

- Launched a new category of products on the site – party decorations (in team of 4).
- Improved speed of the main sales report by 80% by storing old data in memcached.

Project Experience

- **Real-Time Operating System** (in team of 2)
  A real-time safety-critical OS that is used to navigate a set of trains on the train track. Entire project was built from the ground up with resulting size of 20K LOC.
- **Efficient compiler**
  Compiler for the simplified C language with improvements like dead code elimination or constant folding and propagation. I have won the challenge for the most efficient compiler against my classmates (class size: 110).
- **Webless** (in team of 4)
  Android application to access services such as Maps or Wikipedia offline – data is transmitted via a custom SMS-based protocol. Led the team and presented the project at Garage48 hackathon, placing 2nd.

Education

- Bachelor of Computer Science, **University of Waterloo,** *2010 – 2015*
- Machine Learning Engineer Nanodegree, **Udacity**, *2016 - Now*

Awards

Programming

- TopCoder Red standing, top 3% (username: <u>vlyubin,</u> 69K total participants)
- ACM ICPC World Finals 13th place (128 teams), *Marrakesh (Morocco)*, *2015*
- ACM ICPC East-Central North America champion (142 teams), *2014*
- Distributed Google Code Jam – top 20 (24K participants in qualification round), *2015*

Mathematics

- Putnam competition: top *100* and UW team member in *2013*, top *120* in *2012*
- National high school research contest in mathematical modeling by the Ukrainian Academy of Sciences – grand 1st place. Topic: "Rvachev functions", *2010*
- National Mathematics Olympiad – 2nd place, regional round – grand 1st place, *2010*
- International Math Olympiad team candidate for Ukraine (12 candidates), *2010*

Miscellaneous

- J.D. Kalbfleisch Scholarship – highest valued Waterloo scholarship for international students (14,000 CAD), *2010*
- Lviv Physics and Mathematics Lyceum valedictorian (class size: 120), *2010*