Sergei Radutnuy

B.S. Mathematics 2014
Minors: Computer Science, Electrical Engineering
University of California, San Diego
U.S. Citizen

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Objective:

As a software engineer, I aim to analyze, design, and build artificially intelligent systems that are robust, scalable, and powerful.

Work Experience:

@WalmartLabs: January 2015 – Present
Software Engineer II: WMX (Walmart Exchange)/Modeling
- Designing & implementing terabyte scale machine learning pipelines to increase return on ad investment 10x+
- Implemented complex, performant feature engineering key to multi-million dollar yearly revenue optimization product
- Learned Scala, Apache Spark & pioneered their use on the team for improved pipeline performance & maintainability
- Created practical solutions to NP-complete inventory allocation problems

Broadcom: June 2013 – December 2013
Software Intern: Mobile Platform Solutions/SoC/ASIC
- Created components of automation & analytics system for complex chip design process in Python
- Reduced process time for common, crucial Neo4j data extraction & organization procedures from hours to minutes
- Provided RESTful solutions for NoSQL database services that saved $24,000 per year in licensing fees

Websense: February 2012 – September 2012
Software Engineering Intern: Emerging Technologies
- Found my way in the design patterns of a massive C++ multi-OS enterprise codebase
- Isolated cause of i18n/l10n bug that had eluded capture for almost a decade
- Discovered scalability issues in new feature that caused total product shutdown

UCSD Department of Mathematics: Fall Quarter 2011, Winter Quarter 2012
TA: Calc (Math 10A), Grader: Honors Lin Alg (Math 31AH, 20F)
- Organized & lead discussion sections, proctored & graded assignments & exams for up to 200 students
- Taught students how to write rigorous, theoretical proofs at the honors level

Project Experience:

Udacity: Spring 2016
Machine Learning Engineer Nanodegree
- Learning fundamentals of machine learning with hands on projects using industry standard Python libraries
- Writing predictive models for real-world problems on real-world datasets

UCSD National Geographic E4E: September 2011 – May 2012; October 2013 – May 2013
Stabilized Aerial Camera Platform
- Collaborated with research team to design Arduino-based actively stabilized gimbal system for aerial photography
- Optimized C parametrization code for spherical panoramas, reducing flight & shooting time by 30+%

U.S. Optics: Summer 2011, Fall 2012
Reticle Illuminator Firmware
- Designed & wrote TI MSP430 firmware in C for one of the most popular upgrades on company's main product line
- Optimized code for low power consumption, allowing 100 hour battery life on the most intense setting
- Added $195 to the value of $1000 military-grade rifle scopes, increasing revenue on sales by up to 20+%

Skills:

Languages:
C, C++, Python, Haskell, Scala, Java, Bash, Hive QL, MySQL, LaTeX, Russian, German
Methodologies:
Machine Learning, Distributed Computing, Functional Programming, Object Oriented Programming, Scrum
Systems & Technologies:
Spark, Hive, Hadoop, MySQL, Neo4j, Google DFP, Linux, OS X, Unix
Tools:
Vim, Git, Unix/GNU utilities, Gerrit, Eclipse