

JACK VALINSKY

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EDUCATION

Bachelor of Science in Computer Science, Minor in Linguistics
University of Rochester

Expected December 2019
Rochester, NY

TECHNICAL

Proficient in: C++, CMake, Qt, ROS, Java, Python, Linux, Git, L^AT_EX
Experience in: C, shell, Go, Javascript (React, Node), CRUD, PostgreSQL

COURSES

Data Structures, Algorithms, Web Programming, Artificial Intelligence, Probability, Discrete Math, Machine Learning, Linear Algebra, Computational Semantics, Language Sound Systems, Grammar Systems, Computer Organization, Computer Models & Limitations, Cryptography, Multidimensional Calculus,

RESEARCH

Project Assistant - Robotics and AI Laboratory May 2016 - December 2017

- Implemented GUI interfaces for embedded robotics in Qt/C++.
- Rewrote CMake build scripts for medium sized C++ projects. Used GitLab for issue tracking and version control.
- Discovered performance bug in research code that led to training speed improvement of natural language model.
- Presented research on semi-supervised training of probabilistic graphical model for natural language understanding to approximately 60 people. Worked with Dr. Thomas Howard at the University of Rochester.

Project Assistant - Silicon Testing Laboratory May 2015 - October 2015

- Analyzed electrical properties of circuit boards to evaluate manufacturing capabilities of proposed vendor for upgrade to the CMS experiment for the Large Hadron Collider.
- Resulted in the CMS team selecting the new vendor. Worked with Dr. Regina Demina and Sergey Korjenevski at the University of Rochester.

Project Assistant - Laboratory for Laser Energetics May 2013 - May 2014

- Derived and implemented physics simulation of x-ray framing camera sensor for fusion experiments in MATLAB.
- Replicated nonlinear distortion present in real sensor data with simulation. Presented research to approximately 20 scientists. Worked with Dr. William Donaldson.

SELECTED PROJECTS

Rnrr Mobile App - 2nd place and Women in Computing Prize for DandyHacks October 2018

- Wrote app in React Native using the Expo SDK and React Navigation.
- Provided information to keep runners safe by plotting user's current location on a map along with locations of registered sex offenders.
- Queried data from SQLite database generated from Python web scraping code written by 2 teammates.

CSGames CSCoins Challenge - 3rd Place March 2017

- Implemented networking/cryptography code for cryptocurrency miner in C++ using OpenSSL and uWebsockets libraries. Deployed miner using Docker. Won 3rd place out of 35 teams.

CSGames AI Challenge March 2017

- Wrote iterative deepening algorithm with distance heuristics in Python to play [paper hockey](#) (equal contribution between 3 teammates).

HONORS & AWARDS

Ronald E. McNair Post-baccalaureate Achievement Scholar
2nd Place - CS Games Machine Learning Competition

February 2015 - May 2017
March 2015