

Daniel Goldstein

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EDUCATION

NORTHEASTERN UNIVERSITY BS IN COMPUTER SCIENCE AND MATHEMATICS

Exp. Dec 2020 | Boston, MA
University Honors Program
President's Award 2019 & 2020
GPA: 4.0 / 4.0

Leadership: TA - Fundamentals of
Computer Science I, Recruitment and
Global Connections Committee Chair -
Husky Ambassadors

ROBBINSVILLE HIGH SCHOOL

Grad. May 2016 | Robbinsville, NJ

LINKS

Website://daniel-goldstein.github.io

LinkedIn://daniel-goldstein

GitHub://daniel-goldstein

COURSEWORK

Algorithms (MS)

Programming Languages (MS)

Cryptography (IP)

Object Oriented Design

Machine Learning and Data Mining

Linear Algebra

Partial Differential Equations

Probability and Statistics

SKILLS

LANGUAGES

C • C++ • Java • JavaScript • Python •
Racket • Scala • SQL

SOFTWARE

Bazel • CUDA • Envoy • Hibernate •
LLVM • Pandas • PostgreSQL • React •
React Native • Spark • Spring

INTERESTS

Piano • Tennis • Sailing • Running

WORK EXPERIENCE

SLACK TECHNOLOGIES, INC. | DEMAND ENGINEERING INTERN

Jun 2020 - Aug 2020 | San Francisco, CA

- Implemented Online Certificate Status Protocol (OCSP) stapling in envoy, an open source reverse proxy, to improve security for Slack client connections and the broader envoy community
- Developed an envoy filter to detect and standardize error responses across the Slack architecture

THE BROAD INSTITUTE OF MIT AND HARVARD - HAIL TEAM

SOFTWARE ENGINEER CO-OP

Jan 2019 - Jun 2019 | Boston, MA

- Developed linear algebra compiler infrastructure in Python/Scala/C++ for hail to enable scalable machine learning in genomic research and other big data applications
- Implemented efficient compilation strategies for streamed SQL joins in Scala/C++ to improve distributed query engine performance

SKYLINK TECHNOLOGY, INC. | SOFTWARE ENGINEER INTERN

Jun 2017 - Jul 2017 | Hamilton, NJ

- Optimized interface unit written in C for Raytheon KIV-7M, a low-level satellite communications controller
- Streamlined server multithreading to achieve 2x performance improvement
- Designed in-house test server to benchmark performance moving forward

RESEARCH

UNIVERSITY OF OXFORD BIG DATA INSTITUTE

VISITING RESEARCH SCHOLAR

Jan 2020 - Jun 2020 | Oxford, UK

- Developed novel algorithms on tree sequences, a data structure for efficiently compressing and processing large-scale genetic data
- Optimized low-level routines in the genetic simulator `msprime`
- Conducted performance experiments for an in-progress `msprime` paper

NASA RASC-AL MOON TO MARS ICE & PROSPECTING CHALLENGE | DIGITAL CORE ANALYSIS LEAD

Sep 2018 - Jun 2019 | Boston, MA

- Awarded Best Technical Paper for robot designed to prospect and extract subsurface water in a Martian or lunar environment
- Applied a Hidden Markov Model to infer stratification and material properties of simulated lunar surface from jack-hammering telemetry data

NORTHEASTERN UNIVERSITY COMPUTER ARCHITECTURE RESEARCH LAB | UNDERGRADUATE RESEARCH ASSISTANT

Oct 2016 - Jun 2017 | Boston, MA

- Collaborated on parallel GPU algorithm for image segmentation and object detection in C using CUDA
- Analyzed impacts of dynamic parallelism and image complexity on performance of level-set segmentation algorithm
- Presented poster on dynamic parallelism analysis at Northeastern's 2017 RISE research expo