

# Daniel Goldstein

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## EDUCATION

### NORTHEASTERN UNIVERSITY BS IN COMPUTER SCIENCE AND MATHEMATICS

Exp. May 2021 | Boston, MA

University Honors Program

Spring 2019 President's Award

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

Machine Learning and Data Mining (IP)

Programming Languages (MS)

Algorithms (MS)

Object Oriented Design

Linear Algebra

Partial Differential Equations

Probability and Statistics

Physics (Mechanics and E&M)

## SKILLS

### LANGUAGES

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

### DATABASES

MySQL • PostgreSQL

### SOFTWARE

Ansible • CUDA • Gradle • Hibernate •  
LLVM • Pandas • PyTorch • React •  
React Native • ROS • Spark • Spring

## INTERESTS

Piano • Tennis • Muay Thai • Sailing

## WORK EXPERIENCE

### THE BROAD INSTITUTE OF MIT AND HARVARD - HAIL TEAM SOFTWARE ENGINEER CO-OP

Jan 2019 - Jun 2019 | Boston, MA

- Developed linear algebra infrastructure in Python/Scala/C++ for the hail compiler 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
- Interfaced with computational biologists for user support and planning of new features

### POWER ADVOCATE, INC. | FULL-STACK SOFTWARE ENGINEER CO-OP

Jan 2018 - Jun 2018 | Boston, MA

- Built a Java Spring web application used by customer success, sales and marketing teams to generate insightful reports on clients' platform usage
- Implemented scheduled jobs to consolidate client data from Salesforce and internal data stores
- Presented at biweekly sprint reviews to stakeholders on Scrum team's completed features and progress

### 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

### 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 in Python to infer stratification and material properties of simulated lunar surface from jack-hammering telemetry data
- Assisted the controls lead developing ROS software in C++ for operation of drilling and water extraction systems

### 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