

# Daniel Weber

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## EXPERIENCE

### AMAZON.COM | SOFTWARE ENGINEER INTERN

May 2021 - Aug. 2021 | Seattle, Washington

- Designed and implemented a heap dump analysis tool to aid developers in the optimization of processes utilizing over 250GB of heap memory.
- Collaborated with key stakeholders on the ad infrastructure team to find the pain points in the existing optimization process.
- Leveraged continuous development/integration to develop an extensible and resilient platform that can evolve with changing business needs.
- Implemented automation to give developers easy access to up-to-date heap dump files, shortening an 8 hour process to a minutes long task.
- Technologies: Java, AWS, CodePipelines, Git

### ZENNER | MACHINE LEARNING INTERN

May 2020 - Sept. 2020 | Tel Aviv, Israel

- Developed a high performance NLU chatbot that enabled customers to seamlessly manage their travel experience.
- Integrated with travel industry APIs to predict flight delays and proactively notify customers.
- Technologies: Python, Javascript, Tensorflow, Rasa, Docker, Git

### DAVID ENERGY | MACHINE LEARNING ENGINEER

July 2019 - Sept. 2019 | Brooklyn, New York

- Designed and curated an extensive dataset of electricity usage predictors from both internal and external sources.
- Created machine learning models to predict a building's electricity demand with 97% accuracy and deployed said models to allow for real-time prediction and scalability.
- Architected an AWS cloud solution to allow the company's resources to scale with demand.
- Technologies: Python, Git, Tensorflow, Scikit-Learn, AWS

## STUDENT INVOLVEMENT

### SPIRE - RESILIENCY FOR THE US POWER GRID

Jan. 2021 - May 2021

- Performed red-team attacks against SPIRE, a distributed system which aims to build a US power grid that is resilient to cyberattacks.
- Demonstrated a resource consumption attack capable of taking the system down in under 20 minutes.
- Worked with the Department of Defense on further attacks and mitigations.

### TA - DISCRETE MATH/COMPUTER SYSTEM FUNDAMENTALS

Sept. 2020 - May 2021

- Taught students low-level computing concepts like data representation, memory safety, and parallelism while performing code reviews.
- Performed teacher's assistant duties for the Honors Discrete Math Course including teaching recitation, holding office hours, and grading homework.

## PUBLICATIONS

- [1] D. Avtanski, A. Lavi, K. Bahl, M. Kaiser, D. Weber, et al. Proinflammatory cytokines modulate resistin expression in breast cancer cells. *Endocrine Society*, 2019.
- [2] D. Weber et al. Resistin induces epithelial to mesenchymal transition (emt) in breast cancer cells through activation of axl tyrosine kinase receptor. *Journal of the Endocrine Society*, 2019.

## EDUCATION

### JOHNS HOPKINS UNIVERSITY

BS COMPUTER SCIENCE

BS APPLIED MATH AND STATISTICS

BA PURE MATHEMATICS

Expected May 2023 | Batimore, MD

Whiting School of Engineering

Cum. GPA: 3.97 / 4.0 Major GPA: 4.0

## LINKS

Github:// [danielkweber](#)

LinkedIn:// [daniel-k-weber](#)

SPIRE:// [Attack Demonstration](#)

## COURSEWORK

### UNDERGRADUATE

Introduction to Algorithms

Data Structures

Computer System Fundamentals

Honors Discrete Math

Honors Linear Algebra

Intro to Optimization

Computer Graphics

Honors Multivariable Calculus

## SKILLS

### LANGUAGES

Python

Java

C

C++

Go

Javascript

Matlab

SQL

LaTeX

x86 Assembly

### TECHNOLOGIES

Git

AWS/Google Cloud

Docker

OOP

Node.js

Express.js

Django

MongoDB

Postgre

TensorFlow

### HOBBYS/INTERESTS

Cycling

Hiking

Coffee Drinking

Concertgoing

Piano Playing

## CERTIFICATIONS

Dean's List

AWS-Certified