# Nir Miller

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College of Natural Sciences            Github : nirmiller

## Education

**B.S Computational Physics,** *University of Texas at Austin*      Fall 2022 - Spring 2026

**Relevant Coursework:** Data Structures (Python), Differential Equations with Linear Algebra, Electromagnetism, Mechanics

**Involvements:** Alpha Epsilon Pi, Texas Rock Climbing, Israeli American Association

**GPA:** 3.74/4.0

## Experience

UT Austin Sanger Learning Center **Computer Science Tutor**, Austin, TX      Winter 2022 - Present

- Communicate with incoming college students regarding their homework problems, and cooperate with them to develop practical learning solutions to their issues.
- Teach and prepare lessons in STEM, including : physics, advanced calculus, and computer science.

Homaze Google Startups **Software Intern**, Israel, Tel Aviv      Summer 2021 - Winter 2021

- Enabled the accumulation of **$65,000+ in funding** through the development of a company website
- **Spearheaded important team meetings** regarding company goals, future outlook, website design, and payment systems.

Daron Roberts, LLC **LinkedIn Scraper Private Developer**, Austin, TX      Fall 2022 - Summer 2023

- Facilitated increased engagement and profile growth on LinkedIn through a custom LinkedIn scraper that **utilizes sentiment and semantic analysis language processing** models to pinpoint most engaged users

Math and Physics **Private Tutor**, Austin, TX      Winter 2022 - Present

- Cooperate with parents to help their kids succeed in middle school to high school level physics and math, including : Kinematics, Algebra 2, Pre-Calc, and Calculus courses.

## Academic Publications

NSC 315 Inventors Energy Analytics - *Supervisor Dr.Michael Pyrcz and ConocoPhillips*

**Developer/Project Leader,** Austin, TX      Spring 2023 - Summer 2023

- Robinson, E., Miller, N., Bean, J., & Dam, L. - Classification of Rod Pump Failures

Investigated the association between differential pressure and oil volume exerted upon a sucker rod pump and failure outcomes. Utilized data analysis and three machine learning models to examine Rod Pump data provided by ConocoPhillips. Wrote a manuscript about the research findings and presented the information to ConocoPhillips

## Projects

idea-search.com **Developer**, Austin, TX      Summer 2022 - Present

- Programmed an application for inventors to determine whether a new idea has been created or patented before. The application utilizes several APIs, including Google Cloud, Patent Search, and Youtube search to name a few. In addition, the program also takes advantage of natural language processing semantic analysis techniques to better understand and query a user's idea

Machine Learning Trashcan **Developer/Project Leader,** Austin, TX      Summer 2020 - Summer 2021

- Programmed a smart trash-bin in Python using Machine Learning Tensorflow libraries such as ResNet-50, that automatically sorted between recyclables and trash contaminates.
- Orchestrated team meetings to educate team members about machine learning, track weekly progress, and ensure deadlines were met

## Additional Information

**Languages**: Hebrew and English.

**Skills:** Android Studio IDE, PyCharm IDE, NetBeans IDE, Jupyter Notebook IDE, Anaconda, Git, Github, Microsoft Word, Excel, PowerPoint, Wix, Shopify, Weebly, Webflow, Inkscape, Adobe Spark, Canva, Slack, Google Sheets Programming, Google Colab, Google Cloud, Unity Game Engine

**Programming Languages** : Python (4 years), Java (4 years), HTML5 (½ a year), C# (½ a year)