

# Avrum Noor

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## Profile

Electrical engineer and systems programmer with a strong background in STEM, research experience in computer systems, networks, game theory, and multi-agent learning. Passionate about developing computer and network resource allocation tools as well as designing scalable, low-fidelity app prototypes.

## Relevant Coursework

**Computer Organization & Systems**  
CS 107

**Probability & Machine Learning for Computer Scientists**  
CS 109

**Mathematical Foundations of Computing**  
CS 103

**Programming Methodologies/Abstractions**  
CS 106A/B

**Performance Engineering of Computer Systems & Networks**  
EE 384S

**Circuits, Signal Processing & Linear Systems**  
EE 101A/102A

**Vector Calculus & Linear Algebra, Ordinary/Partial Differential Equations**  
CME 100/102/104

**Classical Mechanics, Waves, Electromagnetism**  
PHYSICS 41/42/43

## Skills

**Computer Systems and Applications Programming** ● ● ● ● ●  
C++/C/Shell

**Full Stack Development** ● ● ● ● ●  
CSS/HTML/JavaScript/ReactJS/Flutter/Flask

**Scientific Computing & Machine Learning** ● ● ● ● ●  
MATLAB/Python (SciKit/TensorFlow/NumPy/SciPy)

## Awards

**Highest in the World IGCSE Mathematics**  
2017

**Highest in Indonesia IGCSE Chemistry**  
2017

**Tan Siong Kie Excellence Award**  
2017

## Education

**B.S. Electrical Engineering, Stanford University**  
2019 – 2023 | Stanford, United States  
GPA: 4.0/4.0

## Research Experience

**Network Architecture Laboratory (NetLab), Machine Learning Engineer** ✕  
03/2021 – present | Stanford, United States  
Developing a close-to-optimal algorithm that enables distributed multi-channel wireless power control in networks using multi-agent learning and game theory, under the guidance of Prof. Nicholas Bambos and IEEE faculty, Ilai Bistritz.

**Lindenberg Group/SLAC Lab, Research Assistant** ✕  
05/2020 – 08/2020 | Stanford, United States  
Simulated the diffusion of mobile ions in conductor materials at Lindenberg Group using Python and parallel-computing techniques.

**Lentink Lab, Research Assistant** ✕  
02/2020 – 07/2020 | Stanford, United States  
Developed a MATLAB program at Lentink Lab that can map, analyze, and quantify the shape of bird feathers, using Generalized Procrustes Analysis (GPA), Elliptic Fourier Decomposition (EFD), and Principal Component Analysis (PCA) in order to understand and leverage factors of flight/aerodynamics from birds.

## Projects

**Heap Allocator, CS 107 Course**  
Built an implicit and explicit free list allocator for heap memory management with an average utilization of 60-70%.

**Stanford AUVSI Drone, Stanford UAV Club**  
Built a drone that can autonomously locate ground-based objects, rescue a hiker, and drop a water bottle using proprietary machine learning algorithms, Raspberry Pi, OpenCV, and Python.

**DogePal, Personal Project**  
Built an AI-powered bot that gives advice on stock investments and trading.

**HYPESTORE, Personal Project**  
Launched an online skeuomorphic sneaker store that allows people to browse sneakers as if they're in an actual sneaker store. Built purely using HTML & CSS.  
<https://avrumnoor.github.io/HYPESTORE/> ✕

**Belajar, Personal Project**  
Developed an app that helps high school students manage their homeworks and track their grades and productivity level.  
<https://belajarapp.carrd.co/> ✕

## Extracurriculars

**Stanford Product Hub,**  
Co-Founder & Tech Vice President

**Stanford UAV, AUVSI Team Co-Lead**

**Stanford ACM Lab, Project Member**