

Nishant Mishra

Harvard Computer Science & Statistics Student

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Education

Harvard University

Cambridge, MA

Bachelor of Arts - AB, Computer Science & Statistics

2020 - 2024

Selected Coursework - Design & Analysis of Algorithms, Differential Privacy (graduate level), Machine Learning (MIT dual-enrollment), Systems Programming & Machine Org., Data Science, Probability Theory, Statistical Inference

Extracurriculars - Group for Undergrads in Statistics at Harvard (Director of Membership), Harvard Computer Society

Technical Skills

Programming: Python (4 yrs), Java (4 yrs), C++ (2 yrs), JS (1 yr)

Markup/Style: HTML/CSS (2 yrs), LaTeX (3 yrs)

Query: SQL (1 yr)

Technologies: NumPy, Pandas, React, Flask, PyTorch, Keras

Applications: MATLAB, LabVIEW, UiPath

Tools: Git, Linux, Unix, Mixpanel, Heroku

Work Experience

Amazon

Boston, MA

Incoming Software Engineering Intern

Fall 2022 (Expected)

Harvard School of Engineering and Applied Sciences

Cambridge, MA

Course Assistant (CA) | CS50: Introduction to Computer Science

Sept. 2021 - Dec. 2021

- Hold two hour-long weekly tutorials, staff office hours, grade quizzes/exams, and assist students on problem sets.
- CS50 is Harvard's largest course with 700+ enrolled students; topics include C, Python, memory, data structures, SQL, and web programming (HTML/CSS, JS, Flask). Offered position after receiving the 5th highest final exam score in Fall '20.

Harvard Institute for Applied Computational Science - StellarDNN Lab

Cambridge, MA

Machine Learning Research Intern | Deep Learning in Astrophysics

May. 2021 - Aug. 2021

- Utilized recurrent convolutional neural networks (Python, PyTorch) to accept a black hole's physical parameters to generate synthetic images; tested using high-resolution images to infer the input back with 98% accuracy.
- Worked with researchers at IACS and the Center for Astrophysics (CfA) to document and propose imaging design recommendations for the Event Horizons Telescope (EHT) Collaboration's upcoming black hole imaging facilities.

Glimpse (Y Combinator, Winter 2020) - Growth Team

San Francisco, CA

Product Analytics Intern | Product Design & Market Research

Feb. 2021 - May. 2021

- Mapped out feature usage trends (Mixpanel) on *Glimpse Events*, a video chat platform with 110k+ registered users, to identify points of weakness in the app's one-on-one matching structure, overseeing a ~30% increase in users in Spring '21.
- Conducted UI/UX interviews to write product req. docs. for *Glimpse Groups*, a community events planning platform.
- Proposed and tested feature sets for Heyyo Chat, a messenger app part of the initial launch cohort of Zoom Apps.

Bioptron Corporation - Research & Development Division

Princeton, NJ

Software Engineering Intern | Depth Scanning Technology in Medical Imaging

Sept. 2020 - Dec. 2020

- Modified Intel's RealSense SDK scripts (Python) to let users capture stereo-camera depth maps with Bash commands.
- Utilized a StereoPi module to image various tumor-like objects. Minimized image noise (MATLAB) to tailor the module's software parameters (Python) to operate in tandem with tumor-imaging equipment.

Career Programs

Jane Street

Manhattan, NY | Remote

First-Year Trading and Technology Program (FTTP) | Github Repository: <https://bit.ly/3dbtAyb>

March 2021

- Selected as 1 of 60 college freshmen to learn more about Jane Street's quantitative trading and technology models.
- Programmed a market trader bot (Python) that utilized TCP connections (Bash), the known fair prices of bonds, and discrepancies in the pricing of securities to generate profit in a simulated financial exchange.
- Automated trader bot placed in the top 8 at Jane Street's 2021 FTTP Electronic Trading Competition (ETC).

Personal Projects

Catch 21: Dice

Cambridge, MA

CS50 Final Project | Github Repository: <https://bit.ly/3oXrXI6>

Dec. 2020

Worked with a classmate to design a web application (Flask, Jinja, Python) that features a two-player dice game (JavaScript), along with a personalized stats page and global leaderboard ranking all registered users (SQL). Front-end designed with HTML5/CSS and Bootstrap 4. Deployed on Heroku (<https://catch-21-dice.herokuapp.com/login>).