

## EDUCATION

- Purdue University** May 2026  
*Bachelor of Science in Computer Science; Minors in Mathematics and Bioinformatics*  
**Activities:** Undergraduate Researcher, Heinz Lab (Auditory Neurophysiology and Modeling); Data Mine (Corporate Partners)  
**Relevant Coursework:** Problem Solving & Object Oriented Programming, Multivariate Calculus

## EXPERIENCE

- IndivHear** Nov 2019 — Present  
*Founder & Developer Remote*
  - Developed the world's first individualized adaptive deep learning-based hearing aid with fully remote self-controlled fitting and diagnostics procedures (patent-pending).
  - Overcame limitations of traditional hearing aids by using a multi-layer convolutional encoder and decoder model with a U-net, accounting for dynamic compression, noise removal, soft clipping and other filters present in hearing aids.
  - Built an Android App using Kotlin & NDK (C++) and a Flask & Socket.IO server; used Tensorflow & PyTorch for deep learning, Arduino for hardware.
- Asterisk Labs** May 2022 — Present  
*Co-founder Remote*
  - Leading a team of 4 to create an engine for solving & grading Linguistics Olympiad problems; writing a custom domain-specific language using Lark & Python to allow fully automated grading of subjective-based solutions.
  - Web-app using React to allow users to solve problems & submit their own solutions; useful for training for various linguistics olympiads.
- Exun Clan (High-School Technology Club)** Apr 2018 — May 2022  
*Vice President (2021-22); Member (2018-21) New Delhi, India*
  - Led a team of 100+ secondary school students in organizing an international technology symposium hosting 3000+ participants.
  - Prepared problems & tasks for Competitive Programming, Computational Linguistics, and Machine Learning competitions on Codeforces and Kaggle.
  - Organized a two-month training program for school students as part of the induction process: mentored prospective members, held sessions, and designed assignments throughout.

## HONOURS AND AWARDS

- Gold Medal:** Indian National Olympiad in Informatics (top 10) Feb 2022
- Indian Team:** International Linguistics Olympiad (top 4 nationally) Jul 2021
- Second Award:** Global Youth Science and Technology Bowl Jun 2021
- Platinum Division:** USA Computing Olympiad Apr 2021
- Bronze Medal:** Asia-Pacific Linguistics Olympiad Mar 2021
- Gold Medal:** Indian Science and Engineering Fair Jan 2021
- Finalist:** IRIS National Fair (Regeneron ISEF Semifinals) Jan 2021
- National Winner:** Google Code to Learn Jan 2020

## PROJECTS

- Tempus** Jul 2021 — Aug 2021  
Developed an [open-source](#) Chrome Extension using JavaScript and the YouTube API which allows users to manage and view timestamped YouTube comments efficiently. [100+ installs](#), featured on [ProductHunt](#) & [Beebom](#).
- Cimico** Dec 2019 — Jan 2020  
Made an [open-source](#) Python script debugger (using Pillow and OpenCV) which generates a video of the program runtime. Released a [PyPi package](#) for the same. Carried out under [CCExtractorDevelopment](#) in Google Code-In 2019.
- Madhooka** Sep 2019 — Jan 2020  
Built convolutional neural networks using Google AutoML to track foraging activity in beehives, allowing beekeepers to keep track of colony health, age structure, honey flow, and pollination.
- CSAD** Dec 2018  
Created an [iOS application](#) using Swift focused on making Indian roads safer by allowing users to report accidents. Used Google Fusion tables & a Flask server to generate area-based heatmaps from the crowdsourced data.

## SKILLS

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|----------------------------|---|
| <b>Tools and Languages</b> | Python, C++, JavaScript, Kotlin, Swift, Dart, Rust, C, HTML/CSS, $\text{\LaTeX}$ , Markdown |
| <b>Frameworks</b>          | TensorFlow, PyTorch, Keras, Flask, OpenCV, NumPy, Lark, Pandas                              |
| <b>Other</b>               | Arduino, Git, SQLite, Jupyter Notebooks   |