ANMOL RATTAN SINGH SANDHU

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EDUCATION

- **Olin College of Engineering / Bachelor of Science in Computer Science** *Needham, MA | May 2025*
  - Relevant Coursework: Software Design, Data Structures and Algorithms, Software Systems, Advanced Algorithms
- **Advanced Courses/ Representations**
  - Azure Cloud Fundamentals, Microsoft AZ-900
  - Summer Program with AwesomeMath, Cornell University
  - Foundational Course on Platforms, The Platform Institute, Singapore
  - National level Workshop on AI (AI•Thon) conducted in collaboration with Intel

SKILLS

- Python, Go, C, C++, C#, JavaScript, Node.js, Java, Dart
- Git, Unity, React, MATLAB, Flutter, SolidWorks
- Fluent in Hindi and Punjabi

EXPERIENCE

- **Researcher, Olin College Crowdsourcing and Machine Learning Lab** *Feb 2022 - Present*
  - Created pipeline to benchmark image matching algorithms on data collected from 50+ co-designers for the Clew app, which is a path retracing app for blind and visually impaired users.
  - Added Protobuf support for data logging using Firebase for the Clew iOS application.
  - Used Python to develop LiDAR based infrastructure to benchmark various algorithms including neural networks like SuperGlue and OpenCV algorithms on different image matching techniques.
  - Currently working on a visual Simultaneous Localization and Mapping (SLAM) system to allow continuous re-alignment during navigation.
- **Coding Team Lead, Public Interest Technologies, Olin College** *Dec 2021 – Present*
  - Developing 2D exploration role-playing game to teach young kids about gender identities in collaboration with the non-profit Out Maine.
  - Onboarded team of students to Unity game development and project collaboration on GitHub.
  - Led coding team design reviews with Out Maine liaisons and mentor professors.
  - Learned skills in prototyping mechanisms and writing scalable code for different game components.
- **Intern, DronaMaps (medium.com/dronamaps)** *Punjab, India | Feb 2021- June 2021*
  - DronaMaps is a Command-and-Control Center solution built on a backend of 3D drone maps.
  - Assisted with time-series analysis of hot spots to help the government plan its infrastructure for dealing with Covid-19 using analytical tools like R and ArcGIS.
- **STEM Scholar, Jr Academy, NY Academy of Sciences** *Aug 2017 - Present*
  - Collaborated with peers from other countries on global challenges like Big Data, Future of Cities and COVID-19. Our team was adjudged as one of the two global finalists for combating COVID-19.
- **Volunteer, EcoSikh Foundation** *Punjab, India | July 2018 - Present*
  - Trained more than 120 young volunteers, over a period of three years, as a master trainer for "train the trainer" program for nurturing micro-forests in their schools or backyards
  - Assisting the senior team to create technology led solution to identify and categorize the native plants and create their seed bank.