

# Sundeep Singh

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## EDUCATION

**University of Pennsylvania** – Philadelphia, PA August 2022 – August 2024 (expected)  
Candidate for Master of Computer and Information Technology  
GPA: 4.00 / 4.00

**New Jersey Institute of Technology** – Newark, NJ Sept 2018 – Dec 2021  
Bachelor of Science in Mechanical Engineering  
GPA: 3.87 / 4.00

## RELEVANT COURSEWORK & SKILLS

**Relevant Coursework:** Introduction to Software Development, Mathematical Foundations of Computer Science, Computer Programming & Problem Solving, Electrical Engineering Principles, Drone Science Fundamentals

**Programming Languages:** Python 3.8+, Java 17+, MATLAB 8.6+, Arduino 1.8+

**Engineering Affiliated Software:** SOLIDWORKS 2020+ (Certified), Autodesk Inventor 2014+ (Certified), AutoCAD 2020+, Creo Parametric 5.0+, MD Solids 4.1.0

**Data Analysis Software:** SAP, Microsoft Power BI, Microsoft Excel, Minitab

## WORK EXPERIENCE

**Collins Aerospace** – Windsor Locks, CT Feb 2022 – October 2022  
*Project Engineer I*

- Provide design oversight and certification for specifications, drawings, and test plans for the Pratt & Whitney F100 and F119 turbofan engines.
- Perform system and component requirement reviews as well as compliance assessments while managing project risks and developing mitigation plans.

**Collins Aerospace** – Windsor Locks, CT May 2021 – Dec 2021  
*Air Management Systems (AMS) Service Engineering Intern*

- Investigated AMS component failures in the Boeing 777 and 787 Dreamliner fleets, gathering incoming field data to perform root cause analyses.
- Resolved pre-existing corrective action plans to update aircraft component maintenance manuals in compliance with the Air Transport Association (ATA).

## PROJECTS

**Battleship** – Philadelphia, PA Nov 2022 – Dec 2022  
*Software Development College Project*

- Developed a recreation of the battleship game using Java and the Eclipse IDE where the human player was matched up against a computer program.
- Multiple classes and subclasses for the different ships (Cruiser, Destroyer, Submarine, and Battleship) converged into the main method while test cases were devised to ensure the game ran properly.

**Surveillance Drone** – Newark, NJ Sept 2021 – Dec 2021  
*Research Assistant*

- Studied the complex nature and design of the neuromorphic camera along with its multiplex sensor for its potential use in a surveillance drone, phasing out traditional camera technology.
- Assisted in training an artificial intelligence program to recognize moving subjects (e.g. cars, people, and vehicles) using a python script and annotated footage from the neuromorphic camera.
- With the artificial intelligence program uploaded to a Raspberry Pi, linked to both the neuromorphic camera and the DJI drone, the proof of concept was validated with a functioning prototype.

## HONORS & AWARDS

- Academic Excellence Scholar (NJIT) Sept 2018 – Dec 2021
- Kaiser Scholarship (NJIT) Sept 2020 – Dec 2021
- Michaud, J.Ray & M. Endow Scholarship (NJIT) Sept 2020 – Dec 2021