Maanu Grover

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Work Experience

- **Swarm Robotix** — Oswego, IL
  Software Development Intern — *June 2017 - August 2017*
  - Worked with a team to prototype a concept for the optimization of intermodal container logistics using multi-robotic systems
  - Developed code for communication among internal components and between robots as well as sensor data manipulation using Arduinos and Java on Raspberry Pis
  - Designed high level algorithms for port navigation, task assignment, and swarm cooperation

Education

- **University of Illinois at Urbana-Champaign**
  Computer Science; GPA: 3.88/4.00 — *August 2017 - Present*
  - **Coursework**: Numerical Methods, Computer Architecture, Data Structures with Honors: Geometric Structures for Graphics, Discrete Structures, Applied Linear Algebra, Intro to Computer Science, Physics: Mechanics
  - **Honors**: James Scholar Nominee, Dean's List

Activities

- **CS 125 Course Assistant** — *January 2018 - May 2018*
  - Assist students taking Intro to Computer Science by providing more accessible guidance and instruction
  - Aid teaching assistants with the instruction of lab sections
  - Hold office hours during the week to help students struggling with the machine problems
  - Moderate the course forum to answer questions about either course topics or logistics
- **Association for Computing Machinery** — *August 2017 - Present*
  - Chair of GNU Linux User Group for promoting use of Linux and the discussion of free and open source software
  - Member of special interest groups for operating systems and the Association for Data Science and Analytics

Projects

- **Build Your Own Lisp**
  - Learn how to build an interpreted programming language by developing a simple Lisp
  - Improve knowledge of and experience with C and imperative programming
- **Password Safe**
  - Build a command-line interface password safe using SHA-256 hashing and PBE MD5 Triple DES encryption
  - Created an executable Java archive for distribution on GitHub for each release
- **Arch Linux Configuration**
  - Setup an Arch Linux installation to comprehend the parts of a Linux distribution and system administration
  - Build lightweight userspace for daily use from scratch, installing and customizing all necessary programs for an efficient personalized workflow

Programming Skills

- **Languages**: Java, C++, Python, Bash, LaTeX, RobotC **Tools/Technologies**: Git, Raspberry Pi, ViM