Carson Garland

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EDUCATION

Columbia University – New York, NY **Expected: May 2024**
Bachelor of Science: Electrical Engineering & Computer Science *GPA: 3.84 / 4.0*
- Ruth Katzman Scholarship Recipient – 2020/2021/2022
- Dean's List: Two Terms
- Columbia IEEE Board Member

Phillips Exeter Academy – Exeter, NH **Aug 2018 – June 2020**
High School Diploma *GPA: 9.72 / 11.0*
- Highest Honors: Two Terms
- High Honors: Four Terms

Dartmouth College – Hanover, NH **Dec 2017 – June 2018**
Dual-Enrollment 2017 / 2018 *GPA: 3.67 / 4.0*
- Dartmouth Book Award – 2017/2018

RELATED COURSEWORK

- Computer Networks
- Signals and Systems
- Computer Systems
- Data Structures and Algorithms
- Advanced Programming in C
- Discrete Mathematics
- Intro to Applied Mathematics
- Multivariable Calculus
- Discrete Mathematics

TECHNICAL SKILLS

- Java
- Python (pandas, matplotlib)
- C
- SQL (MySQL)
- MATLAB
- LTspice
- ATOLL RF Network Software
- MS Suite (PowerBI, Excel)
- Google Suite

WORK EXPERIENCE

AT&T Inc. **June 2022 – Aug 2022**
TDP Data Analyst Intern
- Produced a user-friendly, approachable python script (using openpyxl and win32com) in order to automate Fiber Metric Definitions for the Fiber Metrics team, saving developer time.
- Ingested siloed tables from local storage through Databricks and into Snowflake using SQL and python as part of the Chief Data Office's Rapid Insight Team.
- Generated multi-source PowerBI dashboards that aided in visualizing the value of the product to support an intern-led innovation team.

WiMNet Lab - Columbia University **Feb 2022 – May 2022**
Undergraduate Researcher
- Using both Bell Labs and Meta receiver-transmitter pairs to study the path loss effects in Outdoor-to-Indoor as well as Outdoor-to-Outdoor measurements of 28 GHz and 60 GHz frequencies.
- Collected upwards of 15 million measurements to establish one of the most extensive databases of 28 GHz Outdoor-to-Indoor path loss data.
- Published author on "Outdoor-to-indoor 28 GHz Wireless Measurements in Manhattan: Path Loss, Environmental Effects, and 90% Coverage" [arXiv:2205.09463].

Verizon Wireless **June 2021 – Dec 2021**
RF Design Intern
- Conducted ATOLL 5G RF propagations to both attain handoff between sites for testing purposes as well as investigate site power changes and suggest proactive responses to maintain coverage.
- Generated Multi-point analyses in ATOLL examining C-Band interference with existing Earth Stations alongside creating a python script to examine the data and produce coherent analysis that backed power increase proposals.
- Developed a python-based tool (using backend API requests, pandas, Matplotlib, and python-pptx) for the RF Engineering and System Performance teams in order to automate activation reports, saving developer time.