Armaan Kohli

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Education

The Cooper Union for the Advancement of Science and Art *New York, New York*
Bachelor of Electrical Engineering, Projected May 2020
*Cumulative GPA: **3.35** Major GPA: **3.92***
Academic Track: Signals & Electronics
Awards: Half Tuition Merit Scholarship, Innovator Merit Scholarship
Graduate Coursework: Bio–Instrumentation & Sensing, Wavelets & Multiresolution Imaging, Comm. Electronics

Experience

Research & Development Intern - *Revolutionary Cooling Systems* *Jan. 2018 - Sep. 2018*

- Developed an IoT system to track temperatures of liquids in commercial cooling vessels
- Designed and prototyped printed circuit boards to implement the solution for mass production, considering cost, antenna design, firmware programming capabilities and power consumption
- Wrote embedded C code firmware for a Bluetooth Low Energy SoC to transmit temperature data via Bluetooth, while minimizing power consumption to optimize battery life

Software Developer - *Oystern* *Jun. 2018 - Present*

- Developing a web app to increase supply chain efficiency and improve inventory management for oyster farmers, distributors and restaurants
- Building front-end of web app using ReactJS, HTML & CSS to interface with mongoDB backend
- Working with users, clients and regulatory agencies to develop an easy to use system that satisfies all requirements
- Designed UX/UI to ensure the software is easy to use and accessible to all users

Projects

Wireless Link Simulations - *Cooper Union* *Autumn 2018*

- Implemented adaptive filter algorithms and turbo error control coding to maximize bitrate while meeting a target bit error rate in noisy and frequency selective communication channels
- Used frequency and time diversity techniques and RAKE demodulation to improve performance in time-varying Rayleigh fading multipath channels in MATLAB

MPEG-2 Codec *Autumn 2018*

- Wrote an MPEG-2 Codec in Python for digital video compression
- Studied the effect of different frame–type patterns, alternative decimation schemes, quantization effects, and various motion vector searching algorithms on the compression rate, visual quality and encoding time.

Coffee Can Radar System - *Cooper Union* *Autumn 2017*

- Reverse engineered and assembled a complete FMCW radar system
- Designed, tested and debugged RF circuit with spectrum and network analyzers
- Implemented image and signal processing functions with Python

Software, Languages & Skills

C, C++, MATLAB, Python, KiCad/PCB Layout, Verilog, Vivado, Linux, Git, Cadance/Spectre

Extracurriculars

Research Paper Club - Co-Founder - *Cooper Union* *Autumn 2017 - Present*

- Assist in running weekly meetings and discussions about research papers and current topics in academia
- Previous topics discussed have been Markov–Chain Monte Carlo methods, compressive sensing, deep learning, gradient descent optimizers, kernel methods, Bluetooth 4.0, SVD and PCA.

IEEE/ACM- Member - *Cooper Union* *Autumn 2017 - Present*