Charles Dunn

cdunnemail@gmail.com — 19 Winter St #3, Somerville, MA 02144 — 224-628-0603

Work and Research Experience

**Associate Technical Staff**, MIT Lincoln Laboratory, Airborne Radar Group, ISR & Tactical Systems Division — 2012-present

Developed and implemented algorithms for many radar projects including a target classifier, a signal processing testbed, and a data simulator. Quickly leveraged open source code and developed a ray-tracing visible light simulation for a vulnerability study. Solved for the PDF of a highly non-linear combination of noise distributions. Conducted large data set testing and analysis that led to novel algorithms and a new understanding of a high priority problem. Leveraged feature distribution divergence to accelerate feature selection and performance analysis of machine learning classification.

**Signal Processing Summer Intern**, Johns Hopkins University Applied Physics Laboratory, Global Engagement Department — 2011

Collected and post-processed I/Q data. Generated Coarse/Acquisition GPS code in Simulink for precision hardware debugging.

**Hardware Design Summer Intern**, Johns Hopkins University Applied Physics Laboratory, Global Engagement Department — 2010  
Designed and printed circuit boards for GPS detection. Conducted a satellite signal integrity study and presented results to colleagues.

**Satellite Design Engineer**, Stanford University Electrical Engineering, VLF Group — 2010

**Radiation Protection Summer Intern**, Hitachi Japan, Nuclear Plant Design Department — 2009

**Ground Station Design Summer Researcher**, Stanford University Electrical Engineering, VLF Group — 2008

Education

**Stanford University** MS in Electrical Engineering 2012 – Communication Systems Concentration  
**Stanford University** BS in Electrical Engineering 2011 – Circuits and Devices Concentration

**Massachusetts Institute of Technology** Advanced Study Program 2015 – 6.437 Inference and Information

35/36

ACT Composite

4.00/4.00

Graduate GPA

800/800

GRE Quantitative

201

EE

Science

Math

CS

Japanese

Other

Units

BS

45

MS

3.80/4.00

Undergraduate GPA

Interest ( ) and Experience ( )

Image Processing Information Theory Optimization Quantified Self

Signal Processing Data Compression Cryptography Design of Experiments

MATLAB Machine Learning C/C++ Nuclear Power

Japanese Linux VLSI Layout Quantum Mechanics

Personal Interests

Internet published 50 word stories

2

Wool hat knitted

1

Coffees consumed   
per day

0

Minute  
52 second  
PR mile

4

200 mile Ragnar relay races

3

Months   
lived in   
Japan

5

YouTube videos with >4k views

6

Ball cascade

juggling  
pattern

7

Miles per day on the VT Long Trail

20

States

camped

in

8

|

|

|

|

|

|

|

|

|