

Clinton Bowen

<https://www.torrho.com>
Clinton.Bowen@gmail.com | 818.687.1941

EDUCATION

CAL STATE NORTHRIDGE
MASTERS IN APPLIED MATHEMATICS
Expected May 2015

BS IN APPLIED MATHEMATICS
May 2010

LINKS

 LinkedIn

SOFTWARE

LANGUAGES

C
C++
C#
Java
L^AT_EX
Matlab
Mathematica
Python
SQL (MySQL, PostgreSQL, SQLite)

LIBRARIES, APIS, AND FRAMEWORKS

.NET
Sage Python
SciPy
RSA BSAFE
Gurobi
CPLEX
Django (and GeoDjango)
PeachFuzz
MiniFuzz

DEVELOPMENT OPERATIONS

IC-Agile Certified Professional
Secure Development Lifecycle
Practitioner
Top Secret SCI Active (No FSP)

SKILLS

SYSTEM ENGINEERING

GPS
Subject Matter Expert (SME) on C/A and CNAV

CRYPTOGRAPHY + CYBER-SEC

Engineering Standards
SME on FIPS 140 to 202 • Cyber-Security Framework • SME on Special Publications 800 Series • RFCs • CNSSPs

EXPERIENCE

BOOZ ALLEN HAMILTON ENGINEERING SERVICES, LLC | TECHNOLOGIST

June 2010 – Present | El Segundo, CA

- Designed a software architecture for SAASM Mission Planning System (SMPS).
- Provided cryptographic analysis for a GPS CNAV project.
 - Identified feasible solutions
 - Assisted in drafting a cryptographic protocol and high level overview of key management
 - Consulted and developed software for prototyping the cryptographic concept
- Designed and prototyped a cradle to grave management system for NIST compliant cryptographic keys that met NIST SP800-53 SC-12 (1) and (2).
- Developed a random number generation test suite in C#
- Built and demonstrated Zigbee 802.15.4 wireless data transfer software in C to potential business partners.
- Developed & tested a Reed-Solomon error correction code library for software defined radio project.
- Developed & tested cryptographic software for a C/C# based GPS receiver.
- Developed & demonstrated SHA-3 based embedded C software for a PIC24HJ12GP201I Controller
- Corrected NIST test vectors for SHA-2 based digital signature algorithms.
- Contributed the 'K' in SHAKE for NIST FIPS-202.
- Directing weekly technical meetings between a team of software developers and clients for project management.

RESEARCH

LIE GROUPS, HOMOGENEOUS MANIFOLDS, AND COMPLEX PROJECTIVE SPACES | Co-AUTHORED WITH MAYRA MORAN AND ATOUR BEAN

May 2009

Partially funded by NSF Grant DMS-0502258

MESSAGE OPTIMIZATION OVER GPS CIVIL NAVIGATION SIGNALS | SUBMITTING TO ION GNSS+ 2015

2015

In this paper, we pose the problem of maximizing the number of special messages allowed while observing the messaging constraints defined in IS-200 and IS-705 for the GPS signals L2C and L5. The problem is posed using a graph of feasible message sequencing and then modelling the graphs as linear constraints for a linear programming (LP) problem.

PRESENTATIONS

- 2014 What the Heck is Fuzz-Testing?
- 2014 BlackHat, DEFCON, SHA-3, & DIAC: The Summer Conferences
- 2014 Configuration Management within Booz Allen Hamilton and an Introduction to C# Phalanx
- 2014 Message Optimization over L2C and L5
- 2013 Error Correction Codes over Finite Fields
- 2012 Mission Planning Optimization
- 2010 Reed Solomon Error Correction Codes