Clinton Bowen

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EDUCATION

CAL STATE NORTHRIDGE

Masters in Applied Mathematics
Expected May 2015

BS in Applied Mathematics
May 2010

LINKS

in: LinkedIn

SOFTWARE

LANGUAGES

C
C++
C#
Java
LaTeX
Mathematica
Matlab
Python
SQL (MySQL, PostgreSQL, SQLite)
R

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 • SME on 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 SOAP software architecture for GPS SAASM Mission Planning System
- Desgined, developed, & tested a MATLAB Reed-Solomon error correction code library
- Developed & demonstrated SHA-3 based embedded C software for a PIC24HJ12GP201I Controller
- Built and demonstrated Zigbee 802.15.4 wireless data transfer software in C to potential business partners
- Designed, developed, & tested a random number generation test suite in C#
- Developed & tested cryptographic software for a C/C# based GPS receiver (ECDSA & SHA-2)
- Designed, developed, & tested message optimization software for GPS L2C and L5 signals in python
- 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	Permutation and Construction Library: A Library for Permutation Based Cryptography
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