

# Agenda

- Speaker's Background
- Resume Workshop
- Job Lead Sources
- Interview Techniques
- STEM Outreach Types & Contacts
- Speaker's Contact Info

# SPEAKER BIO (1 of 2)

- Fred Lawler

- BSEE from Virginia Tech
- MSEE from GWU
- Active TOP SECRET Clearance
- 20+ Years of Progressive Experience
  - Mostly in Aerospace/Defense Industry
    - At OEMs (TRW/Northrup, Boeing & Raytheon (Current))
    - At SETAs (Contractor Support at Space & Missile Center (SMC))
  - Several in Commercial/pre-IPO Companies
  - Both Direct & Contract Jobs
    - Lots of 'Contract-to-Hire' (CTH) Jobs These Days!
- Numerous post-MSEE Continuing Education
  - Local Vendor Seminars
    - MathWorks, National Instruments, Keysight, Tektronix, ANSYS, etc
  - After-Hours Technical Courses
  - Lunchtime Seminars

# SPEAKER BIO (2 of 2)

- Active in Other Local “Networks”
  - Several Engineering Societies
    - AIAA-LA, INCOSE-LA, IEEE-LA/OC, The Planetary Society, etc
  - Several Co-ed Sports Leagues
    - Coach & Play in 3 Softball Leagues, Beach Vball, Bowling, etc
  - Several Church Organizations
    - Jr High & High School Catholic Teaching Classes & Retreats
  - Various Young Professional (YP) & STEM Outreach
    - Conduct YP Events & Assist After-School Math Tutoring
  - Active in Several Employee Organizations at Raytheon
    - Technical Information Groups (TIGs)
    - Employee Recreation Groups (ERGs)
    - Lunch & Learn (L & L) Seminars

# Purpose of Resume

- “Living” Document
  - Should be Kept Current Until Retirement
- Highlights Your Accomplishments as They Pertain to Job to Which You are Applying
  - Technical Skills
    - Design, Analysis, Prototyping, Integration, Test, Verification, Sell-off, etc
  - Computer Tools
    - Word, Excel, Powerpoint, Visio, MATLAB, LabView, SolidWorks, CATIA, etc
  - ‘Soft’ Skills
    - Briefings, Vendor Coordination, Integrated Product Teams (IPTs), etc
- “Reverse-Chronological” Format
- Top-Half of First Page Must “Motivate Reader”!

# Key Resume Features (1 of 2)

- Easy Filename
  - Include Your (Short) Name
  - Include “Revision Tracking”
    - eg: “fredlawlerresumeXX.doc”
- LOTS of ‘White Space’
  - Eases Its Readability
  - If needed, use ‘Narrow’ Margin in WORD
- Number of Pages
  - More Than One Page is OK
    - Depends on Extent of Education & Experience

# Key Resume Features (2 of 2)

- NO Photos, Line Separators, Graphics
- Must Easily ‘Ingest’ into Applicant Tracking System (ATS)
- Bullet-format with Different Action Words
  - Developed, Coordinated, Implemented, Coded, etc
  - No ‘Complete Sentences’!
- Recommended Font & Size: Ariel & 12-Point
- Is Your Experience OR Your Education Most Important Towards This New Job?
  - Then Will Place “Experience’ OR ‘Education’ Section Next Under ‘Skills’ (within Top Half of First Page!)

# “Profile” Section (1 of 3)

- Most Important Part of Entire Resume!!!
- At Top of Resume
- No More Than 3-4 Lines Total
- Highlights Important Experiences & Skills
  - Targeted to REQ to which You are Applying!
  - Further Detailed Later in Your Resume
- Must Capture Your ‘30-Second Elevator Pitch’!!!

# “Profile” Section (2 of 3)

- Should Capture ALL Key Info:
  - “Nearly-Graduated” OR “Entry-Level” OR “Early-Career” OR “Experienced”
  - Your Experience/Knowledge in Key Technologies
    - Embedded, IT, RF, Digital, Cyber, Power, Control, Mechanical, Packaging, Thermal, etc
  - Latest Formal Degree
    - Diploma, AS, BA, BS, MA, MS, MBA, PhD
  - Experience(s) in Which Industries?
    - IT, Aerospace, Commercial, Utilities, Automotive, Medical, Utilities, FFRDCs, Telecom, etc



# “Profile” Section (3 of 3)

- Any Management Experience
  - MS-Project (Schedule), Cost, Mentoring, Performance Reviews
- US Citizenship or VISA Status
  - Must Clarify VISA Status & Sponsorship Needs
- Any Security Clearance
  - DoD: Confidential, Secret, Top Secret, Top Secret/SAP
- Any Certification(s)
  - Professional Engineer (EIT or PE), Information Technology (IT), etc
- Diversity (If Not ‘Obvious’)
  - Gender, Race, Disability (if Applicable)
- Bi-Lingual (if applicable)

# “Skills” Section

- Just Under “Profile”
- One “Bullet” Line Highlighting Each of:
  - ‘Cradle-to-Grave’ Product Development
    - Proposal, Design, Modelling, Prototyping, Integration, Test, Sell-off
  - PC-Based Tools that You’ve Used & Familiar With
    - MS-Office, Visio, Access, MATLAB, LabView, AutoCAD, Pspice, etc
  - Technical Writing/Documents Produced
    - Lab Reports, Vendor Specs, Briefings, SOWs, RFQs, CDRLs
  - “Soft Skills” Experience
    - Customer Briefings, Vendor Negotiations, Team Coordinator, etc
  - Any Programming Language(s) Skills

# “Employer” Section (1 of 2)

- Per Each Employer:
  - Full Name & Location
  - Direct (Salary) or Contract (Hourly Rate)
  - If Former Employer, Note Why Separated
    - Company-wide Lay-off, Contract Funding Ended, Voluntary Separation, etc
  - Your (Progressive?) Job Title(s)
  - What Company Produces (Product or Service)
  - How Your Role(s) Contribute to Their Product/Service

# “Employer” Section (2 of 2)

- Per Each Employer (cont)
  - Your Key Accomplishments per Role
    - Expand on ‘Profile’ & ‘Skills’ Sections
    - Use ‘Active’ Verbs
      - Obtained, Identified, Analyzed, Generated, Networked, Baselined, Coded, Coordinated, etc
    - Quantify Accomplishments (where possible)
      - ‘Tracked XX Specs’, ‘Analyzed YY Parameters’, ‘Obtained ZZ Quotes’, etc
    - If applicable, Show Progressively Higher Titles/Responsibilities
  - Only List Past Employers that are Recent & Relevant to Job Sought (if You have held Several Past Jobs)

# “Education” Section

- List All/Recent Formal Academic Degrees
  - Reverse-Chronological-Order
  - Only Cite Two Most-Recent Degrees
  - Note Institution & Location per Degree
  - If Recent & ‘Good’ (> 3.0/4.0), Note Graduated GPA
  - For Each Cited Degree
    - Note Your Specialty(-ies)
      - DSP, Software, Controls, Computer, Communications, Power, Mechanical, etc
    - Note Your Upper/Senior-Level Electives & Labs
      - Include Relevant Technologies, PC Tools & Test Equipment
        - RF, Digital, Embedded, PLCs, etc
        - PSpice, Breadboard, MATLAB, etc
        - Oscilloscopes, Power Supplies, Multi-Meters, etc
  - Note any ‘Outside’ Activities
    - Officer in College Club, College Chapter of Professional Society, Tutoring, etc

# 'Miscellaneous' Section

- List towards Bottom of Resume
  - Hardware/Test Equipment
  - Software Languages & Tools
  - 'Publications' (Documents You Wrote!)
  - Affiliations (Professional Societies)
  - Relevant Hobbies/Passions
  - Volunteer Activities/Positions Held
  - Relocation (Open; within XX Area?)
  - Citizenship/Clearance Status

# Sample Resume (Top Portion)

**FREDERICK ("Fred") E. LAWLER**

Torrance, CA 90503

(714) 369-9516

[fredlawler@hotmail.com](mailto:fredlawler@hotmail.com)

[www.linkedin.com/in/fredlawler](http://www.linkedin.com/in/fredlawler)

## **PROFILE:**

Experienced & Versatile Digital & RF Acquisition, Architecture, Subsystems Design & Development, Integration, Test, Certification & Sell-off Engineer (with **MSEE & Active TOP SECRET** Clearance)  
Responsible for Successful Implementation of Advanced Technology Projects.

## **SKILLS:**

- \*Proposal, Design, Analysis, Simulation, Prototype, Integration, Test, Certification & Sell-off
- \*PC-based Tools: DOORS, MBSE, MATLAB, LABVIEW, CAIV, Office 2010
- \*Technical Writing, Reports, Specifications, ECPs, Briefings, RFPs, RFQs, SOWs, CDRLs

## **PROFESSIONAL EXPERIENCE:**

**11/18 to Present: Raytheon-Space & Airborne Systems (SAS) (Direct)** El Segundo, CA

Principal System & Test Engineer Responsible for RF & Digital Architecture Baseline & Planning for IRAD EW RADAR & Warning Receiver (RWR) Suite Prototype Integration & Verification Testing:

- \*Baselined 60+ Performance Requirements for Targeted Platforms (F-18, UAV) (using DOORS)
- \*Generated & Documented First of 6 Progressive Verification Tests for Prototype HW & SW LRUs

# Sample Resume (Education)

**2012 to 2016: ITT Tech Institute** (*Part-time; Nationwide Shutdown per DoE*) Torrance, CA

Adjunct Technology Professor Responsible for Teaching & Enhancing Undergraduate Electronics, Telecommunications & Networks Lectures & Co-requisite Labs:

\*Strengthened Students' Technical Writing & Presentation Skills by including a Formal Research Report Generation & Powerpoint Presentation in select "Senior-Level" Classes.

\*PC-Based Tools (eg, Electronic Workbench (EWB) & VisSIM) utilized in Labs Employing Modern Test Equipment (eg, Oscilloscopes, Spectrum Analyzers, Digital Multi-Meters, etc).

\*Specific Courses & Labs Successfully Enhanced & Taught include:

ET-2530: Digital Communications (ASK, FSK, PSK, QAM, PLL, PCM, T-1, PSTN)

ET-2560: Introduction to "C" Programming (Flowcharts, Pelles IDE, Algorithms, Loops)

ET-2640: Microprocessors (8051, LED, ADC, RTC, Assembly, RAM, ROM, Interrupts)

ET-2750: Programmable Logic Controllers (PLCs) (SLC-500, Ladder Logic, Timers)

ET-3110: Networking & Communications (TCP/IP, Ethernet, Packet Switching)

ET-3220: Mobile Wireless (FDMA, TDMA, CDMA, VPN, IEEE-802.11, VLAN)

ET-3330: Telecommunications Systems (Eb/No, BER, SATCOM, Link Budgets, EIRP)

ET-4640: Embedded Systems (Microcontrollers, PIC18, Assembly, I/O, IDE)



# Sample Resume (Education)

## EDUCATION:

**GEORGE WASHINGTON UNIVERSITY (GWU)** Washington, DC  
**MSEE** in Communications Engineering & Computer Science

**VIRGINIA TECH** Blacksburg, VA  
**BSEE** in Communications & Computer Engineering

Company-Sponsored Classes: IPv6 Networking Fundamentals  
Introduction to MATLAB & SIMULINK  
Software-Defined Radio (SDR) Design  
Hands-On LabView Lecture & Lab  
Hands-On Applications of MBSE & SysML  
Fundamentals of Multi- & Hyper-Spectral Remote Sensing  
Free-Space Optical Systems Design & Fabrication  
Introduction to ISR RADAR Systems Engineering

# Sample Resume (Last Portion)

**TEST EQUIPMENT:** BERT, DSO, DVM, AWG, RF Power Meter, Spectrum Analyzer, Power Supplies, Vector Network Analyzer, ATE, STE

**PUBLICATIONS:** GWU Graduate Research Report (Digital Image Processing)  
Numerous Technical & Project Documentation, Including:  
SOW, System, Subsystem, ICD, Unit, Interface & Test Specs & Briefings

**AFFILIATIONS:** IEEE Communications & Computer Societies, AFCEA, AIAA & INCOSE.

**VOLUNTEER:** Coordinated & Conducted Several STEM (Student Outreach) Events, Liason Among 20+ Local Professional Engineering Societies, Coach in several Softball Leagues

**CLEARANCES:** Active TOP SECRET, Recent TOP SECRET/SCI (CI POLY), COMSEC/TRANSEC

# Job Leads Sources

- Job Boards
  - Monster
  - CareerBuilder
  - Craig's List
  - ClearanceJobs
- Job Aggregators (Set-up a 'Job Agent')
  - Indeed
  - GlassDoor
- Social Media
  - LinkedIn

# Interview Techniques

- Pre-Interview
  - Research Company & Products/Services
  - Review REQ
  - Review Dress Code & Logistics
- At Interview
  - Bring Your 'Portfolio' (Sample Reports/Labs)
  - Ask Questions (eg, Length of Contract, Type of Tasks, Travel, etc)
  - Get Business Cards (per Interviewer)
  - Ensure They Know that You Want The Job!
  - Thank Them & Ask "What's Next Step"?
- Post-Interview
  - Write 'Thank You' E-Note (per Interviewer)

# STEM Outreach (1 of 2)

- College-Based Events
  - Annual “Dinner with Industry” (@ CSULB)
  - Invited Speaker Talks (@ CSULB)
  - Annual College “Palooza” (@ LATTC)
- Professional Society-Sponsored Events
  - Monthly Dinner/Meetings
  - Young Professionals (“YP”) Events
  - Annual Mars Rover Update & Professional Society Expo (9<sup>th</sup> Annual in March/April 2021)

# STEM Outreach (2 of 2)

- Weekly Tutoring (mainly Math)
  - St Joseph's School (Hawthorne)
  - Serra High School (Gardena)
- Heritage Center (@ SMC) Tours & Talks
- Annual FIRST Competition (High School Robotics)
  - (“Fuzz”): [fazlul.zubair@raytheon.com](mailto:fazlul.zubair@raytheon.com)
- Mentorships
  - STEM Advantage
    - [leeann@stemadvantage.com](mailto:leeann@stemadvantage.com)
  - Olive Crest
    - [nicholas-king@olivecrest.org](mailto:nicholas-king@olivecrest.org)

# Contact Info

- Fred Lawler
  - Young Professional (YP) & STEM Outreach
  - Multi-Professional Society Liason
    - AIAA, IEEE, INCOSE, AFCEA, The Planetary Society
  - Cell: (714) 369-9516 (PT)
  - fredlawler@hotmail.com