

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/re-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 Mixers & 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
 - Proposal, Design, Analysis, Prototyping, Integration, Test, Sell-off, etc
- Computer Tools
 - Word, Excel, Powerpoint, Pspice, MATLAB, LabView, SolidWorks, ProE, etc
- ‘Soft’ Skills
 - Customer Briefings, Vendor Coordination, Integrated Product Teams (IPTs), etc
- Must Be Readable (LOTS of ‘White Space’)!
- “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, Identified, Implemented, 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’

“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”
 - 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
 - Experiences in Which Industries?
 - IT, Aerospace, Commercial, Utilities, Automotive, Medical, Utilities, FFRDCs, 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)

“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 & Very Familiar With
 - MS-Office, DOORS, MATLAB, LabView, AutoCAD, Pspice, etc
 - Technical Writing/Documents Produced
 - Test Reports, Vendor Specs, Briefings, SOWs, RFQs, CDRLs
 - “Soft Skills” Experience
 - Customer Briefings, Vendor Negotiations, Team Player

“Employer” Section (1 of 2)

- Per Each Employer:
 - Full Name & Location
 - Direct or Contract
 - If Former Employer, Note (Parenthetically) Why Separated
 - Company-wide Lay-off, Contract Funding Ended, Voluntary Separation, etc
 - Your Title(s)
 - What Company Produces (Product or Service)
 - How Your Role(s) Relate to Them

“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, 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 Several Past Jobs)

“Education” Section

- List All/Recent Formal 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, Controls, Computer, Communications, Power, Mechanical, etc
 - Note Your 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

Sample Resume (Top Portion)

FREDERICK ("Fred") E. LAWLER

Torrance, CA 90503

(714) 369-9516

fredlawler@hotmail.com

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 involving Payload, Avionics & Telecomm across Complete Life-Cycle in both Commercial & Aerospace Industries.

SKILLS:

- *Proposal, Design, Analysis, Simulation, Prototype, Integration, Test, Certification & Sell-off
- *PC-based Tools: DOORS, MATLAB, LABVIEW, CAIV, Office 2010
- *Technical Writing, Reports, Specifications, ECPs, Briefings, RFPs, RFQs, SOWs, CDRLs
- *Pro-Active Team Player & Aggressive Subcontractor Technical & Management Approach

PROFESSIONAL EXPERIENCE:

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

Principal System & Test Engineer Responsible for Hardware Definition of Advanced Weather Sensor (VIIRS) STE, MGUE Next-Gen ASIC (NGA) Requirements Baseline & HADES EO Sensor Testing:

- *Consolidated & Obtained ROM Quotes for COTS Upgrades of 16 CCAs for STE Rack
- *Identified & Categorized 4 Possible Requirements Sources to Baseline STE Capabilities Spec
- *Imported & Baseline 12+ Gov't Specs (using DOORS) & Linked to 2 Traceable NGA Specs
- *Developed & Tracked 14 Key Metrics to Assess Maturity & Testability of NGA Design
- *Generated 2 Sensor Flight Hardware (EMI and Continuity & Isolation/Safe-to-Mate) Test Procedures
- *Networked Among 5 ERGs to Increase Professional Engineering Society & Software Participation

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
- 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”) Mixers
 - Annual Mars Rover Update & Professional Society Expo (9th Annual on Sat, Sept 12)

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
- Mentorships
 - STEM Advantage
 - leann@stemadvantage.com
 - Olive Crest
 - nicholas-king@olivecrest.org

Contact Info

- Fred Lawler
 - Cell: (714) 369-9516 (PT)
 - fredlawler@hotmail.com