The Consulting Career Option
Insights from the Consultants’ Network of Silicon Valley

February 8, 2022

Please put your questions in the Q&A box (not chat)
Outline

- Introduction
- Why consult
- When to consult
- Preparing to consult
- Consulting-career case studies
- IEEE-CNSV can help
Introduction

- Consulting can provide opportunities for an interesting career
  - An opportunity to see many different work environments
  - The "2 out of 3" Formula: you can often have 2 of 3 needed skills for a job, and learn the 3rd during consulting gigs

- The 200+ members of IEEE-CNSV have a variety of skills
  - Our member listserver and website allows access to all of them
  - CNSV provides an opportunity to learn from other consultants

- IEEE’s members can join technical societies (e.g., Computer and Magnetics) and/or Affinity Groups
  - CNSV is one of about 40 Consultants’ Network Affinity Groups

- This program will provide insights from consultants with varied experiences
Why Consult

- **More Freedom**
  - Ability to customize one’s job
  - Upward technical career path alternative to full time management

- **More Fun**
  - Simulating variety of tasks from multiple clients
  - Remain at forefront of technology free of any particular company or product line

- **More Reward**
  - Earn more income
  - Stepping stone to entrepreneurship
Why Consult

Consulting vs. Contracting

- Contracting
  - Providing a skill to do an assigned task; e.g. write a program that does X
  - Often the client has a temporary job slot and needs a body to fill it

- Consulting
  - A higher life form – advise the client on what they need, and how to do it
  - e.g. assess client needs, advise client of need for a program that does X, then write the program

This presentation concerns consulting, not contracting
Why to **Not** Consult (yet)

- **Not ready**
  - Insufficient expertise or network to sustain a consulting business

- **Too scary**
  - Prefer the income predictability of salary employment
  - Unwilling to learn the many facets of running a small business

- **Too shy**
  - Lack of consultant personality (see next slide)
Why to **Not** Consult (yet)

- **Personality red flags**
  - Difficulty selling yourself
    - Can you talk up your experience and skills (honestly without putting people off)?
    - Will you find it hard to talk with prospective clients?
  - Difficulty connecting with strangers
    - Are you comfortable explaining concepts and issues to people you just met?
    - Can you walk into a room full of strangers and strike up a conversation?
  - Difficulty with unfamiliar new information
    - Are you a “quick study” in picking up new technologies, procedures, etc.?
When to Consult

Timing of consulting careers vary greatly:

- Early: School → Employee → Consulting
  - Career built on consulting
- Mid: School → Employee → Consulting
  - Consulting at height of career
- Late: School → Employee → Consulting
  - Consulting as semi-retirement

- Much more detailed data is available for $35 from PATCA (Search for “PATCA survey”)
- Also search for “IEEE-USA Consultants fee survey”

Success as a consultant:
- 1: Having a skill that is in demand / 2: Being able to be found
Preparing to Consult

- **Set goals and direction**
  - Have information interviews with seasoned consultants
  - Clarify career goals, both long-term and in short-term

- **Build knowledge and network**
  - Develop expertise in a rising specialty
  - Grow network
  - Study up on small business skill set
  - Learn about intellectual property rights

- **Plan path to consulting**
  - Consider working for a consulting firm
  - Before resigning as employee, consider gaining experience via volunteering, moonlighting or other part-time consulting-like activities

A non-optimal scenario: Only start thinking about consulting after your employer suddenly downsizes and eliminates your job.
Consulting Career Case Studies

The next slides illustrate a variety of consulting careers.
Consulting Career Case Study #1

An intellectually and financially rewarding career

A case study of a career built on consulting

- Transitioned to consulting at age 32 after start-up folded
- Advanced networking technology via embedded systems code
  - Also contributed to robotics
- Now an expert witness

Fun anecdotes:
- Wrote SW control for big rebar bending equipment
- Wrote early robot arm code for silicon wafer handling
- Expert witnesses make $400 or more per hour

Valued IEEE-CNSV benefits:
- Consulting practices training
- Referrals to clients
- Comradery of consultant network

Career timeline of an IEEE-CNSV member (JW)

Consulting practices training
Referrals to clients
Comradery of consultant network

Joel W → Brian
Consulting Career Case Study #2

A case study of a career built on consulting

- Started consulting at 26; went solo at 32
- Expert in flash memory and data storage technology
- Speaking at conferences led to many consulting contracts
- Major player in capturing Silicon Valley history

A valued IEEE-CNSV benefit:
- Path to IEEE leadership roles and hence reputation building

Fun anecdotes:
- Close relationship with Computer History Museum
- Have interviewed pioneers of many breakthrough technologies including Google Maps, Mars Rovers, Shakey the Robot, CDMA, ...
Consulting Career Case Study #3

An enriched career experience via consulting

- First worked 15 years as engineer and manager
- Consulting/contracting for start-ups lead to executive roles
- Exclusively consulting from age 44

Valued IEEE-CNSV benefits:
- Networking with other consultants
- Client leads

Fun anecdotes:
- Clients are companies of all sizes
- Started and ran industry conferences
- Wrote a book on Digital Storage
- Gigs included expert witnessing and due diligence for investors, etc.
- Earned PhD in Japan at age 52!

Career timeline of an IEEE-CNSV member (TC)

Representing IEEE at IEEE Engineering Milestone ceremony in Hawaii (for 1st trans-Pacific cable).

Tom → David
Consulting Career Case Study #4

A career oscillating between consulting and W2 employment

- Graduated (engineering & policy)
- Initial college (liberal arts)
- MBA
- Mix of consulting & full-time W2 work
- Active in industry associations
- Full-time & staffing agency & independent consulting

Career timeline of an IEEE-CNSV member (DS)

A case study with consulting in the mix

- Learned consultant role working at consulting companies
- Used consulting as stepping stone between full-time W2 employment positions
- First independent contractor gig at 52, established S Corporation at 58, first staffing agency role at 59, currently a staffing agency role with consulting on the side
- Progressively retooled multiple times to remain on a leading edge

Valued IEEE-CNSV benefits:
- Leads for consulting work
- Forum to give reputation-building talks

Fun anecdote:
- Retooled from healthcare to environmental engineering to e-commerce to cybersecurity.

David → Joel K
A case study of consulting as semi-retirement

- At 35 transitioned from academic research to industry
- Lacked networking DNA for a career built on consulting
- Consulting proving to be a great way to semi-reitre

Fun anecdotes:
- Helped count number of types of neutrinos (three)
- Helped make touchscreens happen
- Had time for father and aunt in their final years
- Led development of patent portfolio for a start-up
- Enjoyed NZ vacation with wife ... and painting afterward!
Consulting Career Case Studies

These consulting career case studies all illustrate being able to leverage an in-demand expertise in building a career customized to one’s desires.
IEEE-CNSV Can Help

- **Expand your knowledge**
  - Hear talks highlighting hot new areas of engineering
  - Receive training in consulting practices (CPP)
  - Have information interviews with seasoned consultants
  - Be mentored as a new consultant

- **Expand your network**
  - Add practicing IEEE-CNSV consultants to your network
    - Discover opportunities, help others with opportunities you know about
    - Learn what is going on in your industry and target companies
    - Learn evolving best practices for running your consulting practice

- **Increase your visibility**
  - Publish BIO on IEEE-CNSV web site
  - Give a talk (monthly meetings)

Don’t need to be a consultant to join IEEE-CNSV!
Q & A

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