

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)

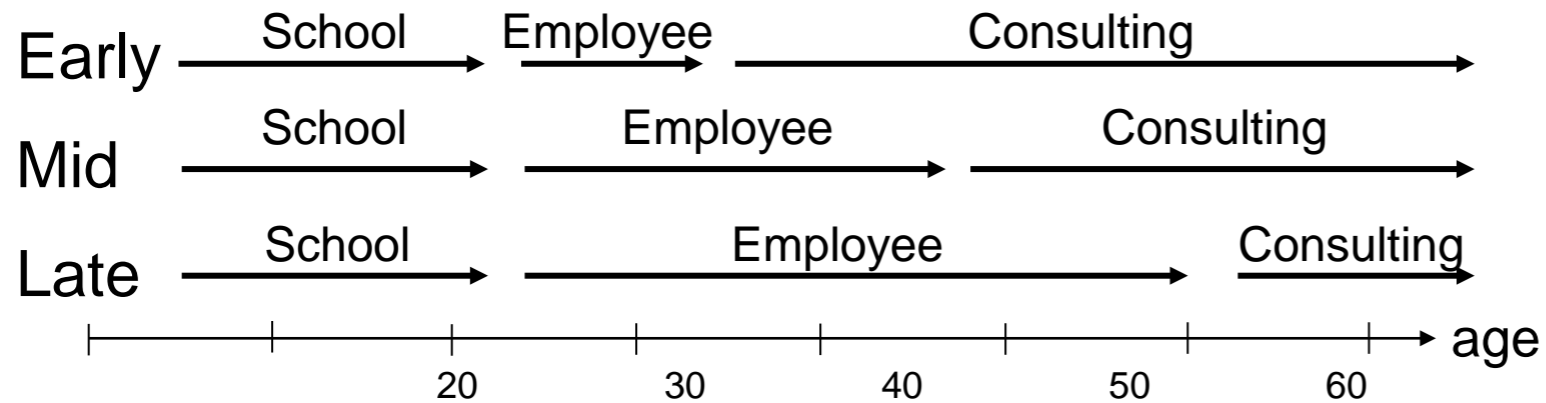
Why to Not Consult (yet)

■ 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:



Career built on consulting
Consulting at height of career
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

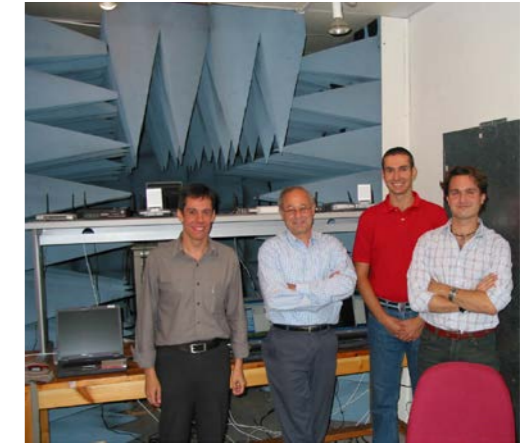
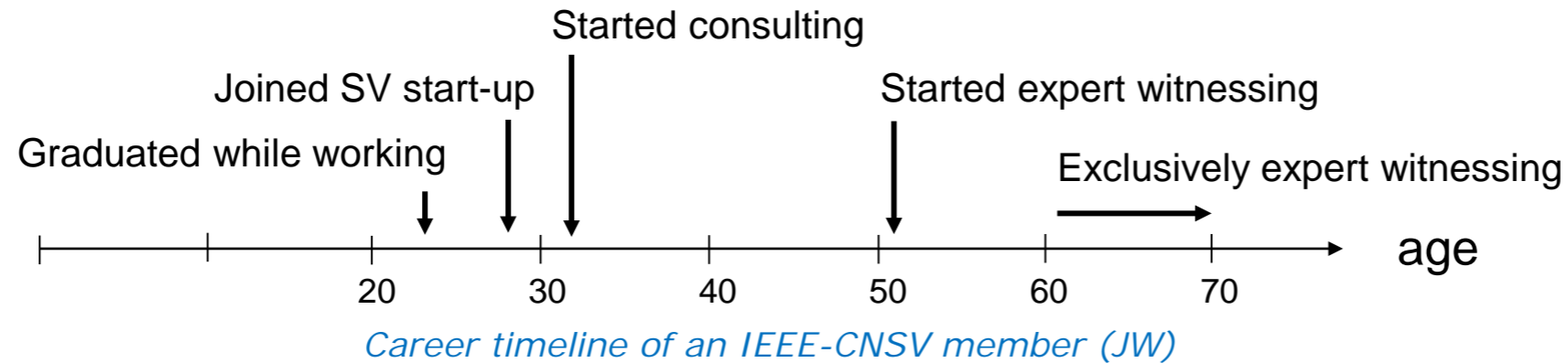
A non-optimal scenario: Only start thinking about consulting after your employer suddenly downsizes and eliminates your job.

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

Valued IEEE-CNSV benefits:

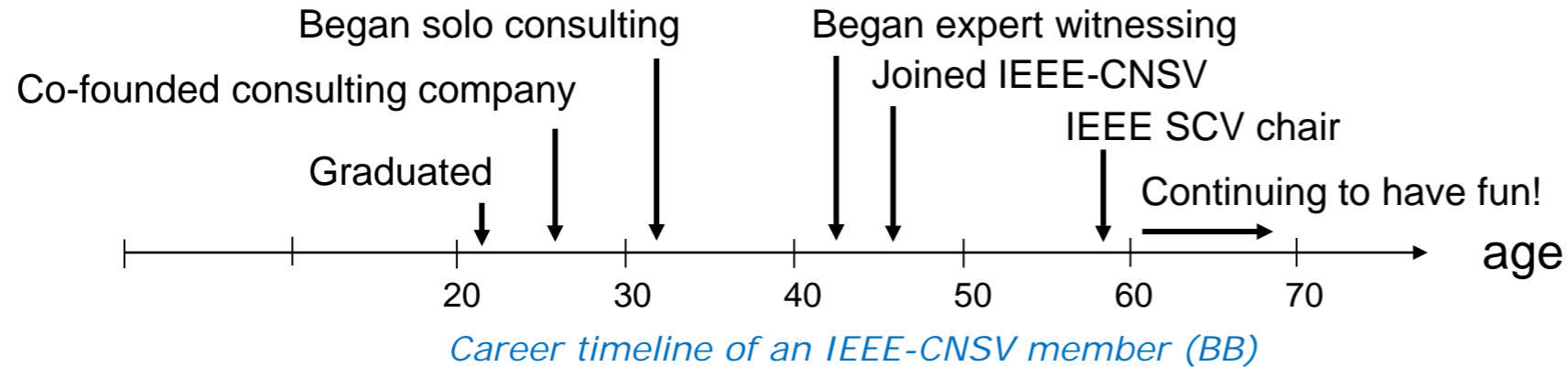
- *Consulting practices training*
- *Referrals to clients*
- *Comradery of consultant network*

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*

Consulting Career Case Study #2

A career of great variety and independence



Presenting at 2015 Beijing Flash Memory Symposium

■ 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

Fun anecdotes:

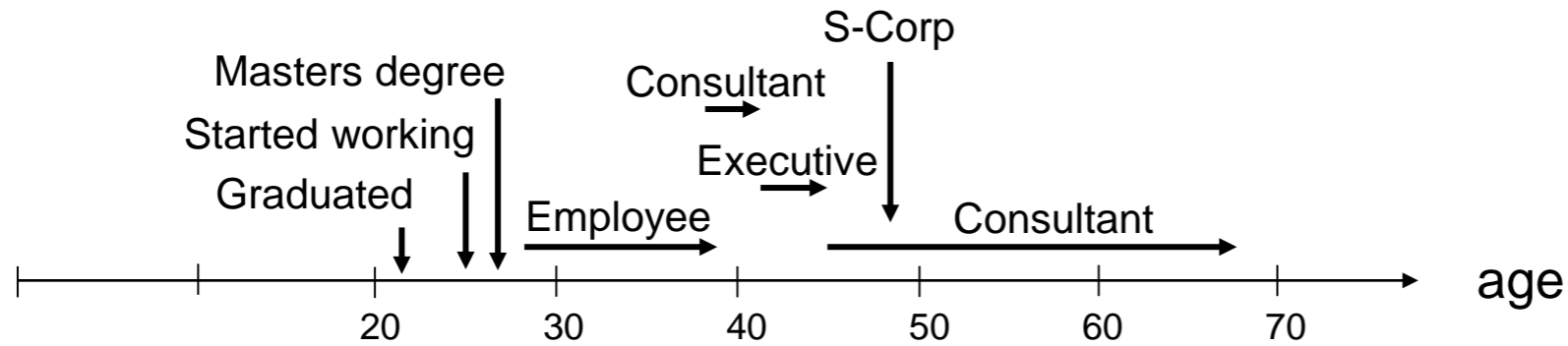
- *Close relationship with Computer History Museum*
- *Have interviewed pioneers of many breakthrough technologies including Google Maps, Mars Rovers, Shakey the Robot, CDMA, ...*

A valued IEEE-CNSV benefit:

- *Path to IEEE leadership roles and hence reputation building*

Consulting Career Case Study #3

An enriched career experience via consulting



Career timeline of an IEEE-CNSV member (TC)

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!*

■ A case study of a consulting at height of career

- 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:

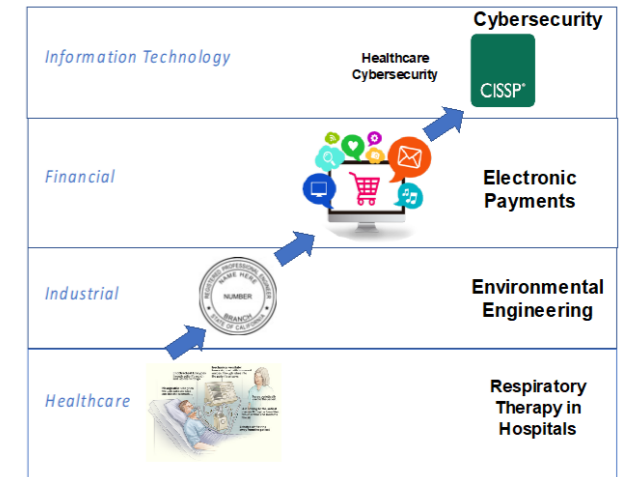
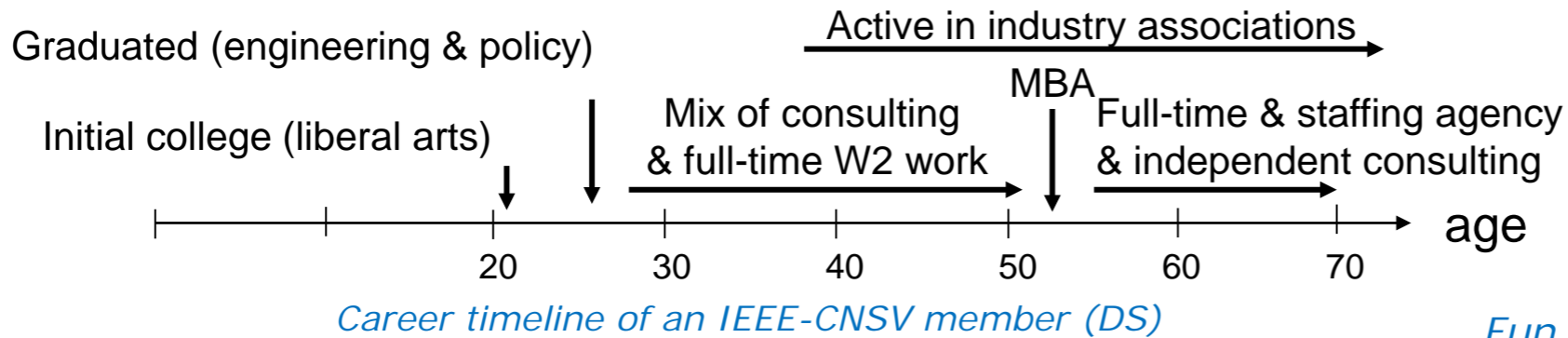
- *Networking with other consultants*
- *Client leads*



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

Consulting Career Case Study #4

A career oscillating between consulting and W2 employment



Fun anecdote:

- Retooled from healthcare to environmental engineering to e-commerce to cybersecurity.

■ 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

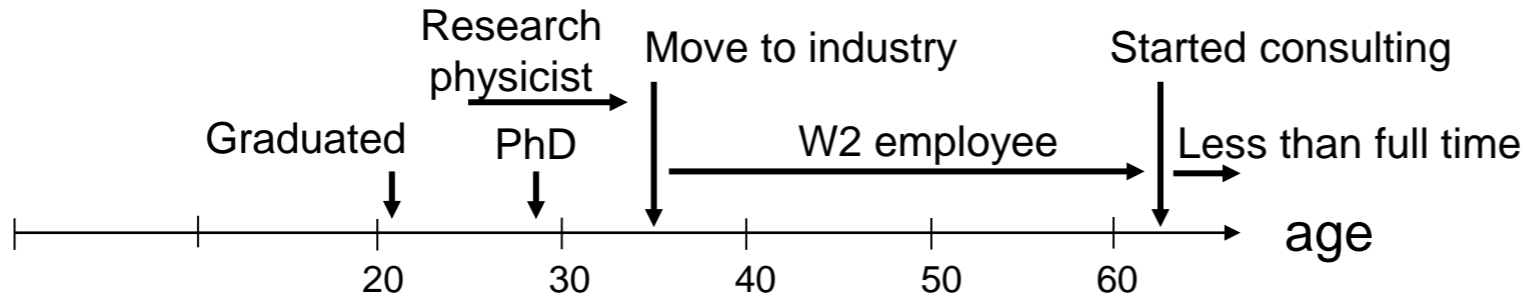
Valued IEEE-CNSV benefits:

- Leads for consulting work
- Forum to give reputation-building talks

David → Joel K

Consulting Career Case Study #5

Consulting as work/life rebalancing



Career timeline of an IEEE-CNSV member (JK)

Valued IEEE-CNSV benefits:

- Follow latest technology trends (via talks)
- Interact with other consultants

■ 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-retire

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!

Wairere Falls & Hobbiton



IEEE-CNSV

Consultants' Network of Silicon Valley

Joel K



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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