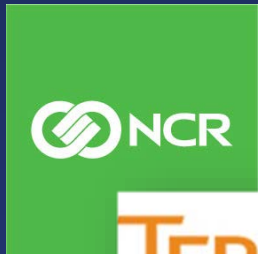# Never. Stop. Learning.

Faye Chou Kurpanek
UC San Diego
Jacobs School of Engineering

My Background

- Math/CS

- M.S. Information Systems

- MBA

The Times They Are A-Changin'

- Bob Dylan, 1964

Education is what people do to you.

Learning is what you do for yourself.

Joi Ito
Entrepreneur, Venture Capitalist, Activist

Continuous Learning for Engineers

- Technical Skills

- Non-technical Skills/Business Skills →

  Everyday Skills

True or False?

If you are: technically strong or
lead architect or
key contributor or
"all that and a bag of chips"

then it's OK if you don't have the best everyday skills because your tech skills will keep you employed.

False!

Everyday Skills

- MBA

  - accounting, economics, finance, marketing, human resources, and operations

- MBAs for Engineers

  - Does it really benefit an engineer?

  - Does it really benefit a tech lead/architect/CTO?

  - Does it really benefit an engineering manager?

Everyday Skills

- Consider a Mini-MBA
  - Essentials of Business Practice
  - Managing Stakeholder Relations
  - Leadership Values, Skills

Technical Learning

- How do you stay current?
  - New Tools
  - New Technologies
  - New Methodologies

- How do you show your employer/investor/customer you are as competitive as new(er) grads?
  - Domain expertise + application of new tools/tech/methods = better package than new grads

Technical Learning
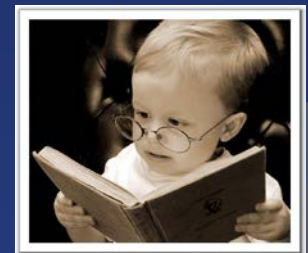
Self-study

Forums

Conference

Certificate

Degree

- Self-study
  - Book/White Paper/YouTube/edX
  - Best for:
    - General Knowledge
    - Familiar
  - Beware of:
    - Lack hands-on
    - Lack collaboration

Technical Learning

Self-study

Forums

Conference

Certificate

Degree

- Forums/User Groups/Blogs
  - Informal online groups
  - Best for:
    - Interacting with experts in the field
    - Quick response
    - Undocumented cases
  - Beware of:
    - Must filter through people who think they are experts but really aren't

Technical Learning

Self-study

Forums

Conference

Certificate

Degree

- Sponsored Conference/Training Class
  - Best for:
    - Networking – Learning what others are doing
    - Academia/Research
    - Expanding/in-depth knowledge in a certain domain area
  - Beware of:
    - Specific to a tool/technology

Technical Learning

Self-study

Forums

Conference

Certificate

Degree

- Graded course/certificate
  - In person or online
  - Best for:
    - Hands-on practice
    - Effective learning technique
  - Beware of:
    - Narrow focus
    - May not provide you with the depth you need

Massachusetts Institute of Technology

This is to certify that

John Q. Professional

PROFESSIONAL EDUCATION
Digital Programs

has successfully completed

Architecture and Systems Engineering:
Models and Methods to Manage Complex Systems

Technical Learning

Self-study

Forums

Conference

Certificate

Degree

- Master's Degree Program
  - In person or online
  - Best for:
    - Hands-on practice
    - Effective learning technique
    - Recognized/respected
  - Beware of:
    - Time
    - Cost
    - Need

KEEP CALM AND GET A MASTER'S DEGREE

Master's Degrees While Working

- Online vs In-person Considerations
  - Online benefits
    - Schedule
    - Able to attend non-local university
  - Online concerns
    - Graduation rate
    - Networking/collaboration
    - Hands-on/accessibility
    - Credibility

Master's Degrees While Working

- Caveats/Questions to ask
  - "Professional" vs "Traditional" Programs
  - Who teaches in the program?
  - Accredited?
  - Student status?
  - Support (after hours/weekends)?
  - What's included in cost?
  - Admission rate?
  - Graduation rate?

Master's Degrees While Working

- When is the right time to go?
  - Two years → ∞

- How much does it cost?
  - $30K → $120K

- I already have MS or PhD, should I consider another Master's degree?
  - Yes!

- Does it really help?
  - Empirical evidence says yes

- Are people really doing this?

Abbott Laboratories
Abbott Vascular Devices
Accenture
Active Mind Technology
Advanced Brain Monitoring
AeroAstroTech
ai-one
Ajinomoto Althea
Alion Science and Technology
Alphatec Spine
American Bureau of Shipping
Angeles Crest Engineering
Athena Mobile
Apex Biotechnology
Applied Medical
AT Dynamics
BAE Systems
Bank of America
Bank of America Home Loans
Barona Resort & Casino
Beckman Coulter
Biopico Systems
Biorxn
Boeing
Booz Allen Hamilton
Branchpoint Technologies
Broadcom
Cakesoft Technology
California Correctional Health Care Services
Caradigm
Callaway Golf
Carefusion
Carollo Engineers
Catheter Connections
CeloNova BioSciences

Clarity Design
Classic Wire Cut
CodeMetro
Cognex Corporation
CoStar Group
Covidien
Crafter Brothers
Cubic Global Defense
Cubic Transportation Systems
Cymer
Deccan International
Dexcom
D&K Engineering
Encore Capital Group
EMN Defense Services
Endologix
EnGenious Technologies
Entropic Communications
Epic Systems
ESRI
Fallbrook Engineering
Forcepoint
Ford Motor Company
Forward Slope
Future Education
Galaxy
Gas and Power Technologies
Genentech
General Atomics
Gimbal
GlySens
Google
GoPro
greenfence
Growth 2.0
Harper Construction

Hewlett Packard
Hologic
Hospira
Hyundai Mobis
IKA
Illumina
InfoSys
Innovive
Inova Diagnostics
Integrant
INTEGRIS Group
Intel
Intuit
JMJ Financial
John Wayne Cancer Institute
KAB Laboratories
KEDZIG
Kelpac Medical
Komaru Technologies
Kontron America
kWh Analytics – Solar Risk Management
Leica Systems
Leidos
Life Technologies
LifeNet Health
Loan Depot
Lockheed Martin
Los Angeles Dodgers
Lucent-Alcatel
Makena Technologies
Medtronic Ablation Frontiers
Medtronic Minimed
Metron Scientific Solutions
MITRE
NAVAIR

Network Appliances (NetApp)
Neustar
Nokia
Northrop Grumman Aerospace Systems
Northrop Grumman Mission Systems
NuVasive
Obzervant
Oncore Manufacturing
OneRoof Energy
Optum360/United Health Group
Panasonic
Parastack
Peregrine Semiconductor
Pfizer
ProQinase GmbH
Qualcomm
Raytheon
Resonetics
SAIC
Samsung
San Diego State University
San Diego Super Computer, UCSD
SeaSpine
Sentek Global
Servicios Quirugicos S.A.
Scripps Health
Scripps Institute, UC San Diego
Shutterfly
SkySurgery
Slacker Radio
Social Nightlife
Solar Turbines
Stonehenge Financial Partners
SPAWAR SSC Pacific

Survice Engineering
Sycuan Casino
SynteractHCR
Tandem Diabetes
TASC
Teco Diagnostics
Teradata
Texas Instruments
Thermo Fisher Scientific
Ticom Geomatics
TrellisWare
Triage Consulting Group
Turn Key
Ubiqomm
UCSD Information Technology Services
UCSD Medical Center
UCSD Research Administration
UCSD Scripps Institute of Oceanography
United States Navy
United Technologies Aerospace
Universal Hospital Services
Uptake
Veyo
ViaSat
Volcano
Vulcan Wireless
Walt Disney Company
Webroot
West Arbor Group
Workday
Y8L Consulting
4Med Imaging

7 years
No ads

Abbott Laboratories
Abbott Vascular Devices
Accenture
Active Mind Technology
Advanced Brain Monitoring
AeroAstroTech
ai-one
Ajinomoto Althea
Alion Science and Technology
Alphatec Spine
American Bureau of Shipping
Angeles Crest Engineering
Athena Mobile
Apex Biotechnology
Applied Medical
AT Dynamics
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Boeing
Booz Allen Hamilton
Branchpoint Technologies
Broadcom
Cakesoft Technology
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Covidien
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Cubic Global Defense
Cubic Transportation Systems
Cymer
Deccan International
Dexcom
D&K Engineering
Encore Capital Group
EMN Defense Services
Endologix
EnGenious Technologies
Entropic Communications
Epic Systems
ESRI
Fallbrook Engineering
Forcepoint
Ford Motor Company
Forward Slope
Future Education
Galaxy
Gas and Power Technologies
Genentech
General Atomics
Gimbal
GlySens
Google
GoPro
greenfence
Growth 2.0
Harper Construction

Hewlett Packard
Hologic
Hospira
Hyundai Mobis
IKA
Illumina
InfoSys
Innovive
Inova Diagnostics
Integrant
INTEGRIS Group
Intel
Intuit
JMJ Financial
John Wayne Cancer Institute
KAB Laboratories
KEDZIG
Kelpac Medical
Komaru Technologies
Kontron America
kWh Analytics – Solar Risk Management
Leica Systems
Leidos
Life Technologies
LifeNet Health
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Northrop Grumman Mission Systems
NuVasive
Obzervant
Oncore Manufacturing
OneRoof Energy
Optum360/United Health Group
Panasonic
Parastack
Peregrine Semiconductor
Pfizer
ProQinase GmbH
Qualcomm
Raytheon
Resonetics
SAIC
Samsung
San Diego State University
San Diego Super Computer, UCSD
SeaSpine
Sentek Global
Servicios Quirugicos S.A.
Scripps Health
Scripps Institute, UC San Diego
Shutterfly
SkySurgery
Slacker Radio
Social Nightlife
Solar Turbines
Stonehenge Financial Partners
SPAWAR SSC Pacific

Survice Engineering
Sycuan Casino
SynteractHCR
Tandem Diabetes
TASC
Teco Diagnostics
Teradata
Texas Instruments
Thermo Fisher Scientific
Ticom Geomatics
TrellisWare
Triage Consulting Group
Turn Key
Ubiqomm
UCSD Information Technology Services
UCSD Medical Center
UCSD Research Administration
UCSD Scripps Institute of Oceanography
United States Navy
United Technologies Aerospace
Universal Hospital Services
Uptake
Veyo
ViaSat
Volcano
Vulcan Wireless
Walt Disney Company
Webroot
West Arbor Group
Workday
Y8L Consulting
4Med Imaging Solution

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Entropic Communications
Epic Systems
ESRI
Fallbrook Engineering
Forcepoint
Ford Motor Company
Forward Slope
Future Education
Galaxy
Gas and Power Technologies
Genentech
General Atomics
Gimbal
GlySens
Google
GoPro
greenfence
Growth 2.0
Harper Construction

Hewlett Packard
Hologic
Hospira
Hyundai Mobis
IKA
Illumina
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Raytheon
Resonetics
SAIC
Samsung
San Diego State University
San Diego Super Computer, UCSD
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Sentek Global
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Thermo Fisher Scientific
Ticom Geomatics
TrellisWare
Triage Consulting Group
Turn Key
Ubiqomm
UCSD Information Technology Services
UCSD Medical Center
UCSD Research Administration
UCSD Scripps Institute of Oceanography
United States Navy
United Technologies Aerospace
Universal Hospital Services
Uptake
Veyo
ViaSat
Volcano
Vulcan Wireless
Walt Disney Company
Webroot
West Arbor Group
Workday
Y8L Consulting
4Med Imaging Solution

UC San Diego

- Master's Degrees for Engineering Professionals
  - Wireless Embedded Systems (2011)
  - Medical Device Engineering (2011)
  - Data Science and Engineering (2014)
  - Architecture-based Enterprise Systems Eng (2010)

- Two year, part-time programs, alternating weekends

- No GREs for admission

- "All-inclusive" tuition $35K - $40K
  - Books, materials, parking, meals, grad fees

- In-person, taught by UC Faculty

- Small classes (18-35)

GNURadio
THE FREE & OPEN SOFTWARE RADIO ECOSYSTEM

Cognitive Radio

Stay Technical.

Move Up.

Invent.

Never. Stop. Learning.

Faye Chou Kurpanek
faye@eng.ucsd.edu
PrincessFaye@ucsd.edu

GRCon17