Finding Your Way (Overcoming Cultural Barriers)

Raja Kushalnagar
Monica Anderson
Raheem Beyah

2019 CRA URMD Grad Cohort Workshop

CRA
Computing Research
Association

Raja Kushalnagar

- Born deaf
- Attended College of Education "Lab" School

- Small school
- Same friends
- Trainee teachers
- Inclusive teaching
- Motivated

Bachelor of Science

U of California at Berkeley

- Intended major: Physics

- Unaware of visual accommodations
- Not used to large classes
- Teachers often insensitive to accommodation needs

- Minimal interaction with students with other disabilities (different colleges, majors)

B.S. in Applied Physics @ Angelo State University

Small university, small classes

No separate office for disability support

Teachers were unaware and sometimes unwilling to meet accommodation needs

After Bachelor of Science

- Did not get physics related jobs
- Finally got computing related jobs
- Data Analyst for Aetna

- After 1 year as data analyst …
- Enjoyed analysis and programming …
- Opted to pursue graduate degree in Computer Science

M.S. in Computer Science

Supported by NTID

NTID provides C-Print transcripts or ASL interpreters

Smaller classes

Developed networking skills for job searches

After M.S.

- Software Engineer
- Research and development on boosting telecom trunk reliability
- 10,000+ co-workers on campus for telecom switching
- 20+ deaf co-workers: peer support group

Doctor of Philosophy

- Ph.D. in Computer Science @ University of Houston
- Course work (2003-2005)
- Breadth – extension of college work
- Biomedical Imaging (2005-2008)
- Isolated team member, misaligned interests and accessibility
- Accessible Technology for DHH (2008-2010)
- External mentors, aligned interests, improved accessibility

- Ph.D. research
- Read previous work and literature in field
- Develop new ideas and verify them

- Not provided interpreters at research lab for biomedical imaging, so pursued law to advocate for equal accessibility …

Juris Doctor and LLM

J.D. @ TMSL (2005-2008)

LL.M. in Intellectual Property and Information Law @ UHCL (2008-2010)

Intellectual Property in Accessible Technology

Copyright, trademarks

Privacy

First and second jobs after Ph.D.

- 2010-2016 – Asst. Professor, ICS Program
- Teach AOS/AS courses
- Support BS students in computing @ RIT
- Research in Accessible Technology

- 2016-Now – Assoc. Prof. & Dir., IT Program
- Manage IT Program
- Teach BS courses
- Research in Accessible Technology

Monica Anderson

**Understand the power of your uniqueness.
Every experience adds to your foundation and makes your perspective unique**

Growing up: Hardware/Construction

- Took electronics in HS
- Wrote and debugged device drivers for NEC
- Woodworking/Learned to sew in 7th grade

Construction

Hardware/Device Drivers

CRA
Computing Research Association

Industry: Software Engineer

- Worked in industry for 12 years
- Owned .com business
- Specialized in distributed architectures

Software Eng

Construction

Hardware/Device Drivers

Pub/Sub Arch

CRA
Computing Research Association

Research Internship: Avaya

- Created early version of automated messaging response via jabber
- Worked in midtown Manhattan/lived at Columbia
- My exposure to corporate research

Software Eng

Construction

Corp Research

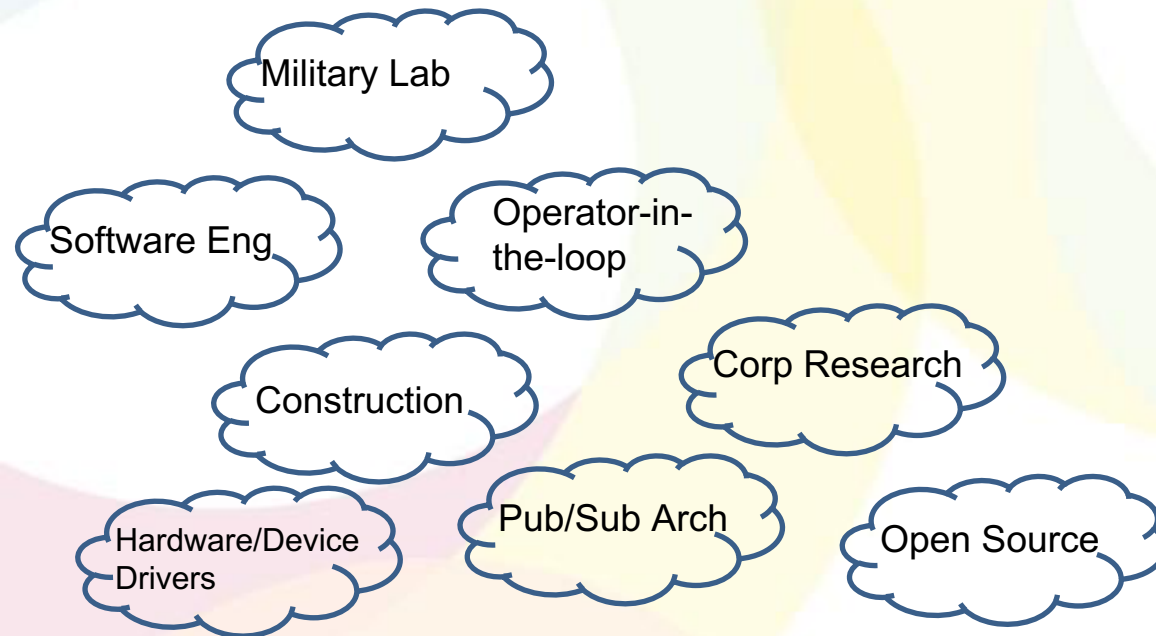Hardware/Device Drivers

Pub/Sub Arch
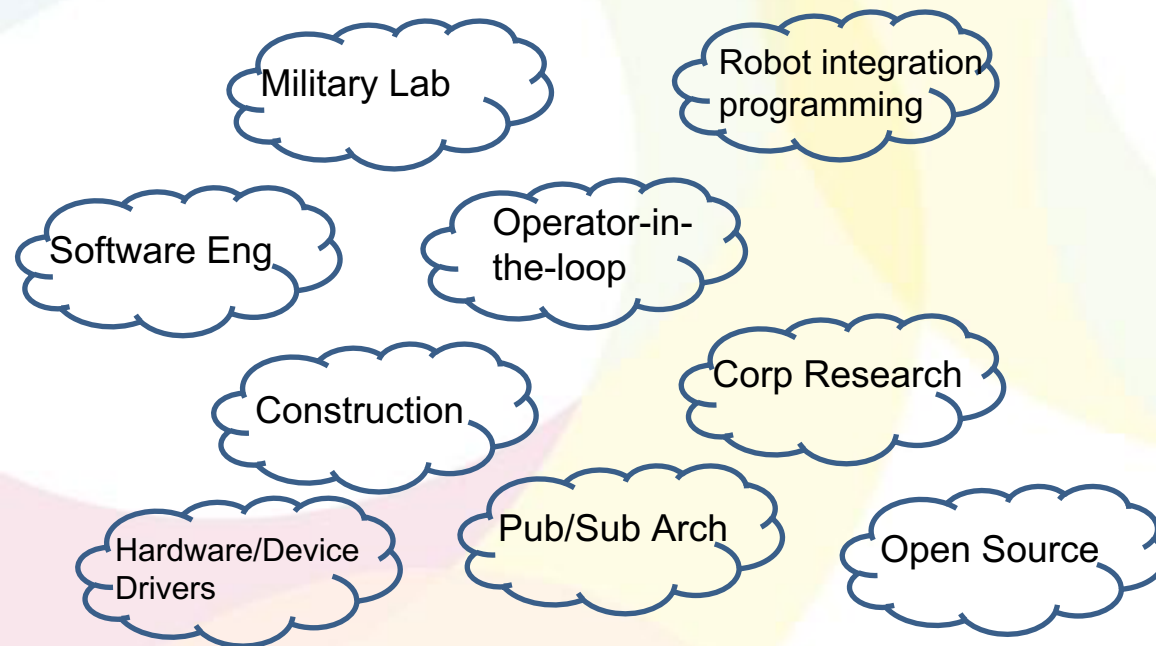
Open Source

CRA
Computing Research Association

Research Internship: Army Research Lab

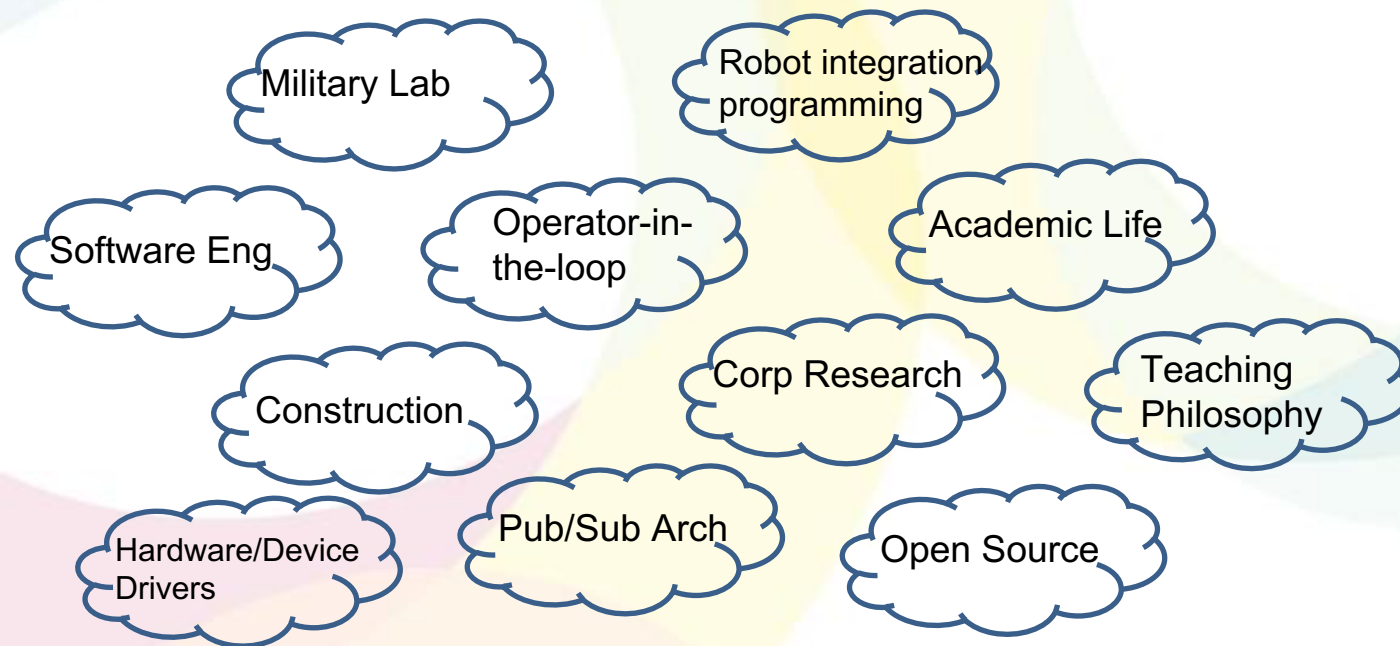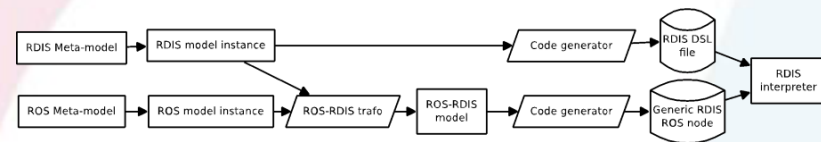- Tasked with "creating an intelligent camera motion algorithm that operators were comfortable with"

Military Lab

Software Eng

Operator-in-the-loop

Construction

Corp Research

Hardware/Device Drivers

Pub/Sub Arch

Open Source

CRA
Computing Research Association

Graduate School: Robotics

- Controlled multirobot experiments
- Designed circuit boards/firmware for novel platforms

Military Lab

Robot integration programming

Software Eng

Operator-in-the-loop

Construction

Corp Research

Hardware/Device Drivers

Pub/Sub Arch

Open Source

Graduate School: Preparing Future Faculty

- 2 semester course
- Created syllabus and teaching practice
- Created CV and teaching statement

Military Lab

Robot integration programming

Software Eng

Operator-in-the-loop

Academic Life

Construction

Corp Research

Teaching Philosophy

Hardware/Device Drivers

Pub/Sub Arch

Open Source

Overcoming cultural barriers

- Always be positive
- Always do your best
- Always do what's right

When all else fails...

On a personal note…

- Married with 5 children: Jessica, Kevin, Alicia, Monica and Danielle

- 4 grandchildren (7, 7, 2, .1)

CRA
Computing Research
Association

Raheem Beyah

My Journey

What compels you to pursue your current career path? Are there specific goals or a desired impact driven by the chosen path?

I enjoy it

I like being my own boss

I like working with students

I like what it affords me

I like taking an idea from the back of a napkin to close-to-prototype

I'm needed

I've been given this opportunity

I like working hard

What key things should one do during Ph.D. studies to determine whether a career in academia (or outside of academia) is best for achieving one's goals?

teach a class

do you (**or can you**) enjoy research?

CRA
Computing Research Association

What expected or unexpected twists and turns have you experienced in the path you've chosen?

Role of advisors/mentors, co-workers, family/friends, community) in influencing choice of career and place of employment?

engaged during end of PhD

had baby before tenure

several mentors are at GT

community & family kept me in Atlanta

CRA
Computing Research Association

Questions??