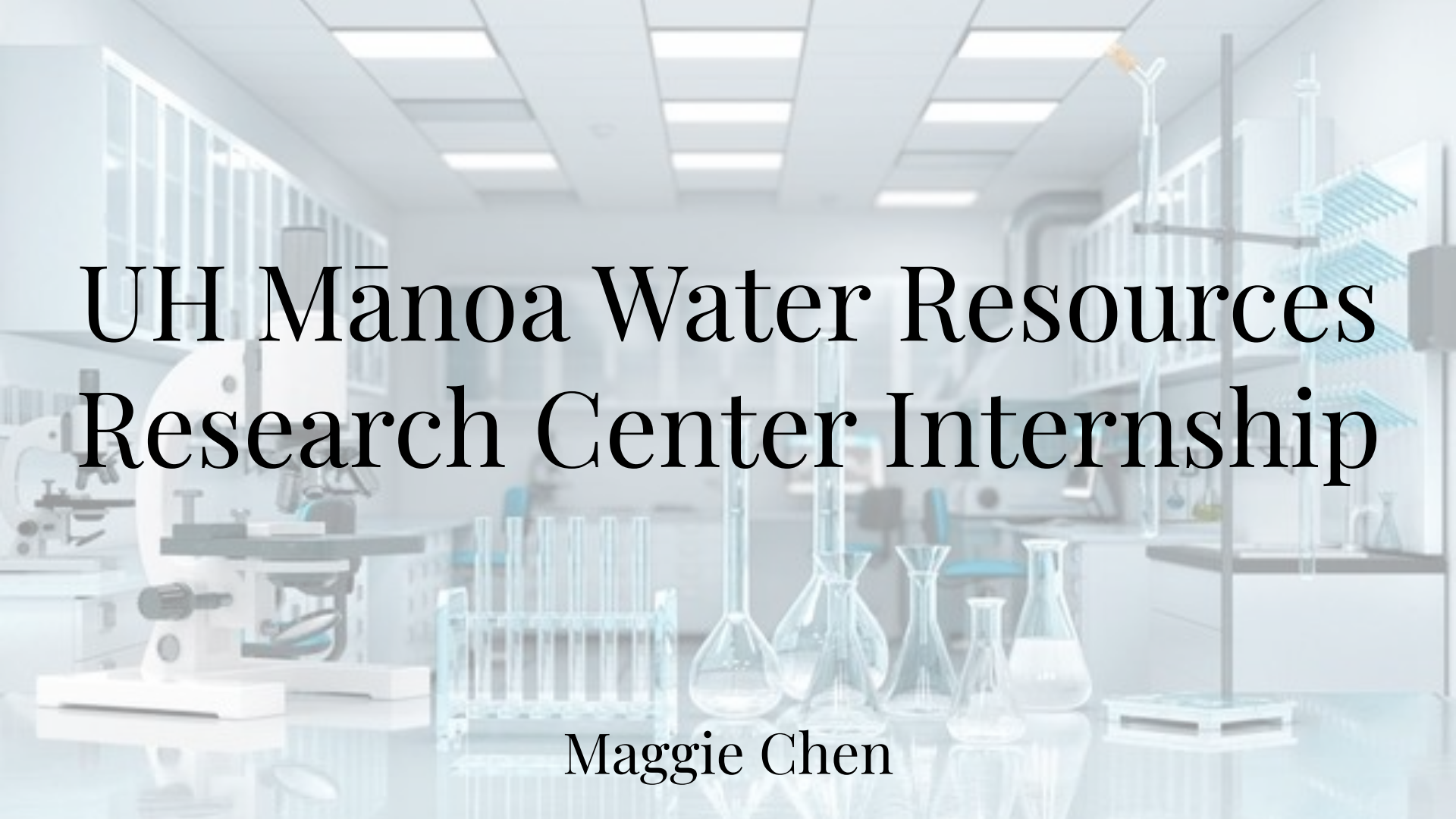


UH Mānoa Water Resources Research Center Internship

Maggie Chen

How did I get the Internship?

Volunteer(s) needed to assist with Maui Fire Community support Inbox ×

Christopher Shuler <cshuler@hawaii.edu>
to earth-undergrads, earth-grads, oceanstudents

Aloha,

If you have an interest in supporting Maui residents impacted by the recent fires I have a not-glamorous but dearly needed project I am seeking help with.

I am a Maui-based UH Faculty, and I decided to start an unfunded project to produce a drinking water information hub and a water sampling program in response to community need.

Essentially, we need help sorting out water test results so they will actually be useful for residents in Lahaina and Kula. It will be tedious, but if you want to lend a helping hand, a few hours of your time could go a long way.

Please reply to me directly if you have the time and interest,
Mahalo,
Chris Shuler

This is the exact email that got me this opportunity!

A simple reply can go a long way

What did I do?

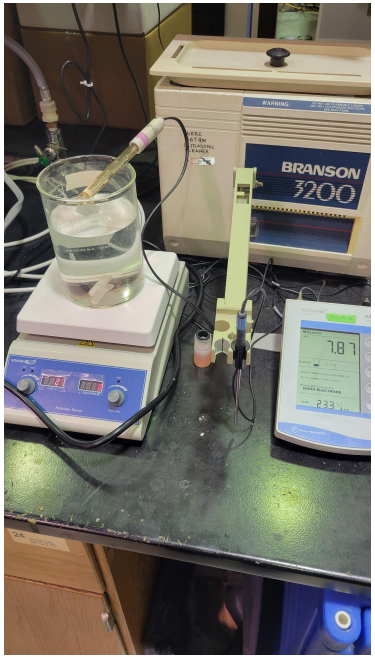
- Started with data entry for Chris' project
- Intended to be a continuous volunteer opportunity but I ended up completing it in one day
- Chris asked if I would then be interested in working in the lab that was actually running the samples

Test location (Display Name)	Sample Date Time	Reviewed by	Benzene	Dichloromethane	Toluene	Ethyl benzene
Maximum Contaminant Levels (MCL)			*5*	*5*	*1,000*	*700*
USEPA 1 day Health Advisory (10 kg child)			*200*	*10,000*	*20,000*	*10,000*
			Chemicals Detected by the Reporting Laboratory			
PWS214 Keawe St Hyd 362	08/20/23 9:46	Maggie C		3.9		
PWS214 Komo Mai (House [364] Tap)	08/20/23 10:49	Maggie C		1.6		
PWS214 Komo Mai Hyd 446	08/20/23 11:16	Maggie C	0.88	3	2.5	1.9
PWS214 Kanakea Loop Hyd 210	08/20/23 12:14	Maggie C		2.1		
PWS214 Kahena Street Hyd 165	08/20/23 13:12	Maggie C		2.9		
Waipuka Tank EPD	08/16/23 10:46	Maggie C			0.06	
Kaniau St Hyd 192	08/16/23 12:55	Maggie C	0.22		0.19	0.11
PWS214 Hanohano St Hyd 326	08/20/23 11:59	Maggie C		2.1		
PWS214 Hanohano St Hyd 327	08/20/23 12:18	Maggie C		2		
PWS214 A'A Pl Hyd 328	08/20/23 11:17	Maggie C		2.7		
PWS214 A'A Pl Hyd 329	08/20/23 11:38	Maggie C		2		
PWS214 Aipuni St Hyd 338	08/20/23 10:55	Maggie C		1.3		
PWS214 Ainakea Pl Hyd 331	08/20/23 9:42	Maggie C		2.9		
PWS214 Ainakea Pl Hyd 332	08/20/23 10:06	Maggie C		2.5		
PWS214 Kani'au St Hyd 191	08/20/23 8:48	Maggie C		1.7		
PWS214 Niheu St Hyd 277	08/20/23 8:48	Maggie C		1.6		
PWS214 Niheu St Hyd 280	08/20/23 9:13	Maggie C		2.8		
PWS214 Laalo St Hyd 273	08/20/23 9:39	Maggie C		2.3		
PWS214 Laalo Pl Hyd 276	08/20/23 10:02	Maggie C		3.2		
PWS214 Hopoe St Hyd 263	08/20/23 10:58	Maggie C		1.6		
PWS214 Hokeo St Hyd 259	08/20/23 11:50	Maggie C		2.2		
PWS214 N Hakau Pl Hyd 258	08/20/23 12:14	Maggie C		1.6		
PWS214 S Hakau Pl Hyd 256	08/20/23 12:41	Maggie C		1.8		
PWS214 Kumukahi St Hyd 268	08/20/23 13:07	Maggie C		1.8		
PWS214 Hookahua St Hyd 343	08/20/23 13:51	Maggie C		2		
PWS214 Kupuohi St Hyd 406	08/23/23 10:04	Maggie C		0.73		
PWS214 84 Aipuni St	08/20/23 9:07	Maggie C		1.3		
PWS214 Lahaina Fire Station	08/20/23 12:43	Maggie C		1.1		

What did I do?

- Began running samples using ion chromatography
- Miscellaneous tasks
  - Cleaning vials
  - Neutralizing acidic waste
  - Learning other machines

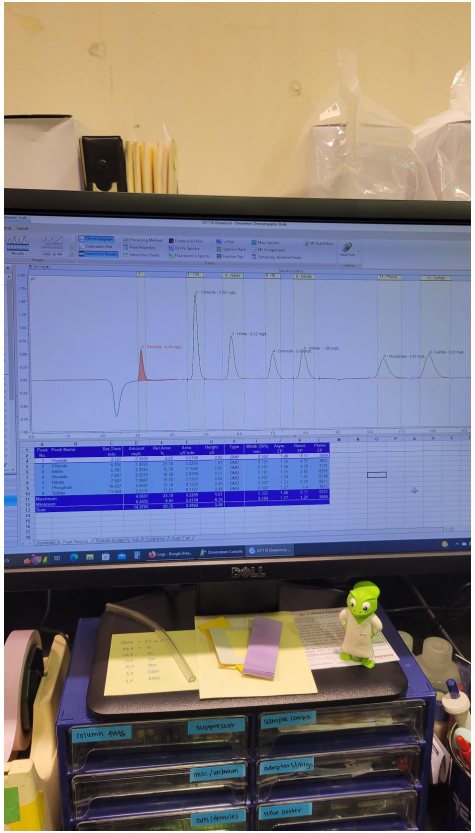
(Cleaning and prepping vials)



(Neutralizing waste)

(Ion chromatography machines)

(Preparing samples)



(Chromeleon software)

What did I Learn?

Skills

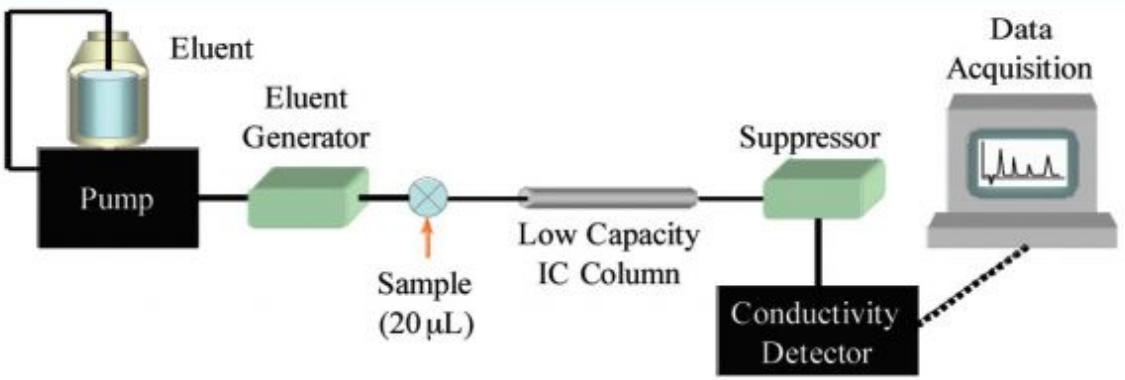
- Precision and attention to detail
  - Mistakes can have bad consequences
  - Equipment is extremely expensive
  - Contamination is really easy and will alter your data
  - Surrounded by and handling dangerous chemicals
  - Precise amounts (microliters!)
- Self-Discipline
  - Me and my supervisor were the only ones in the lab
- Constant Learning
  - A new task to learn how to do every shift
  - Very steep initial learning curve

Academics

- Chemistry
  - My only experience with chemistry was online during Covid; didn't retain much
  - Hands on experience here will hopefully make chemistry classes in the future more understandable

How did this Help Me?

- Forced me to come out of my shell
  - Responding to that email took a lot of courage
- Reaffirming that I am capable of achieving difficult things
  - I wanted to quit the first few weeks due to the learning curve
  - Forced myself to push through and became sufficient way quicker than I thought I would
- Realizing how many opportunities there are and how easy it is to get them
  - Had always been intimidated by applying to opportunities
  - Now I have a good foundation to apply for more and feel a lot more confident



Why You Should do an Internship

- Resume building
  - Provides experience for future opportunities
- Personal confidence
  - Attested my ability to achieve things, learn new skills, and get through difficult situations
- Learning new skills that you'd find nowhere else
  - I wouldn't have come across in-depth hydrology and ion chromatography if it weren't for this opportunity
- Networking/Future opportunities
  - I am severely underqualified for this but got the chance because it was as a volunteer
  - Got offered a paid position in the lab upon completion of the internship