

Institute of American Indian Arts (IAIA)



“To empower creativity and leadership in Native Arts and cultures through higher education, life-long learning, and outreach.”
– IAIA mission

Santa Fe Institute (SFI)



Searching for order in the complexity of evolving worlds.

Former UCRs with Mentors

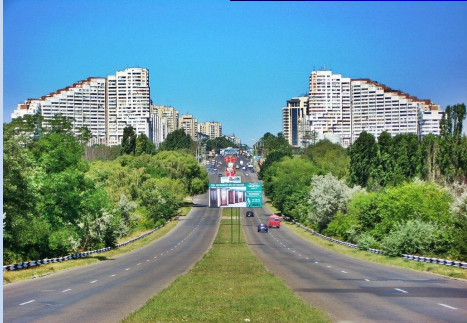


“Those (UCR) summers stand out in my memory as important turning points in my academic career and way of thinking about the world.”

– Bradi, UCR 2015



Abeera (A-bee-ra)



Travelogue



Cookbook

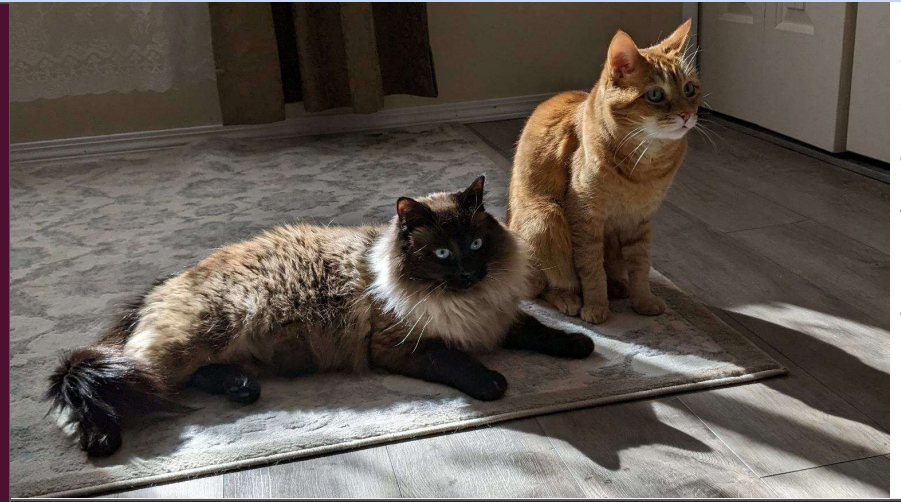


SOPHOCLES
THE THEBAN PLAYS

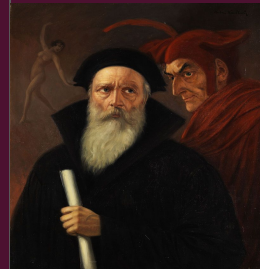


Tales from the Thousand and One Nights

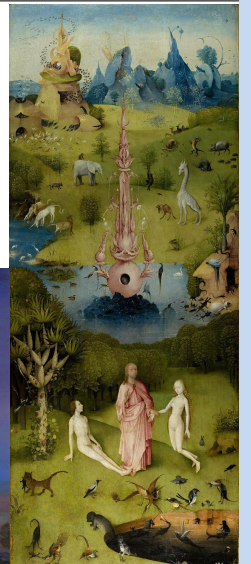
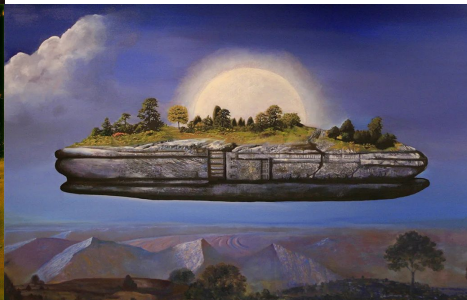
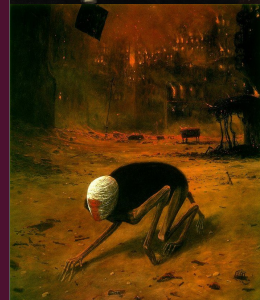
Library



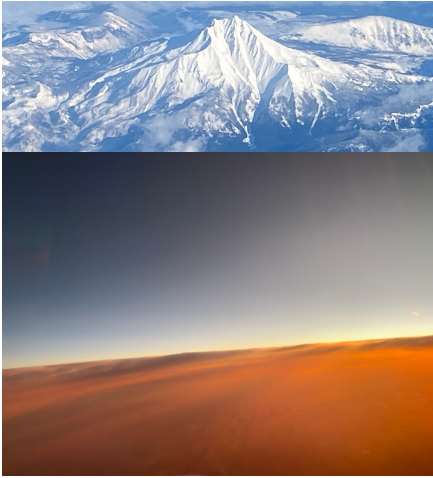
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Gallery



Nathan Hasegawa



Photography & Aviation



Crossword Puzzles

$$\text{Var}[P(t)] = \begin{cases} P_0^2 \left[(\sigma_1^2 + \mu_1^2)^t - \mu_1^{2t} \right] & t < T_s \\ P_0^2 \left[(\sigma_1^2 + \mu_1^2)^{T_s-1} (\sigma_2^2 + \mu_2^2) - \mu_1^{2(T_s-1)} \mu_2^2 \right] & t = T_s \\ P_0^2 \left[(\sigma_1^2 + \mu_1^2)^{T_s-1} (\sigma_2^2 + \mu_2^2) (\sigma_3^2 + \mu_3^2)^{t-T_s} - \mu_1^{2(T_s-1)} \mu_2^2 \mu_3^{2(t-T_s)} \right] & t > T_s. \end{cases}$$

Geometric Brownian Motion Simulations: Rheinmetall

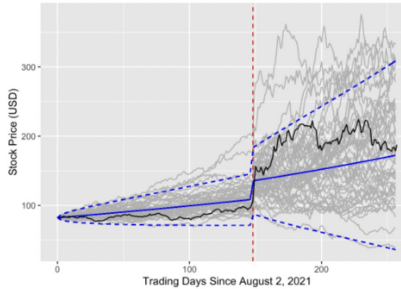
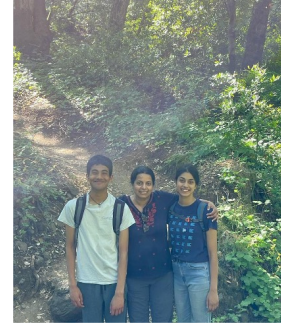


Figure 3: Simulations and data for the Rheinmetall stock price, August 2, 2021 to August 1, 2022.

Mathematics

Shloka Janapaty



Home: San Jose, CA



Favorite Place: Tuolumne Meadows



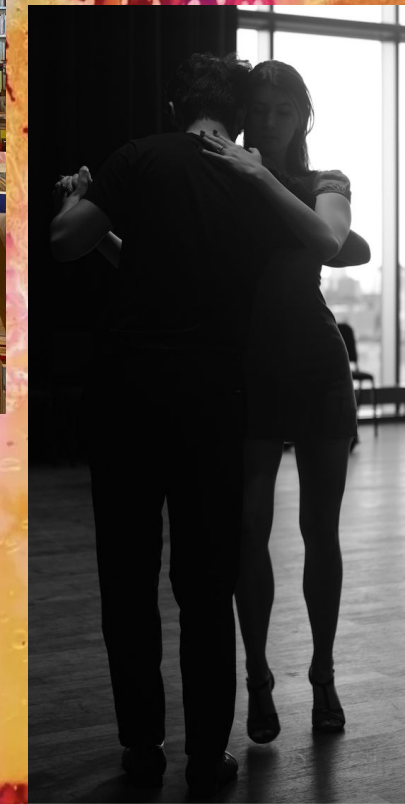
Unexpected Hobby: Climbing things

Non-fiction

- ☼ *Flow* by Mihaly Csikszentmihalyi
- The Selfish Gene* by Richard Dawkins
- The Structure of Scientific Revolutions* by Thomas Kuhn
- The Sixth Extinction* by Elizabeth Kolbert
- Moonwalking with Einstein* by Joshua Foer

Top 5 Movies

- ☼ *American History X*
- Saving Private Ryan*
- 12 Angry Men*
- Lord of the Rings: The Return of the King*
- The Departed*



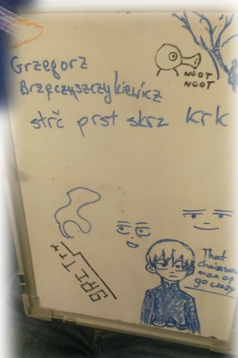
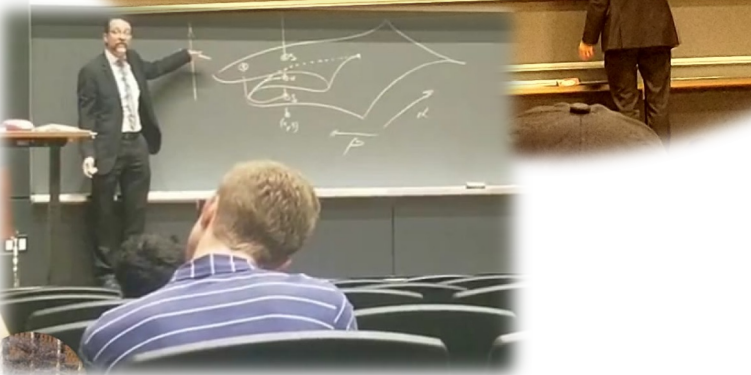
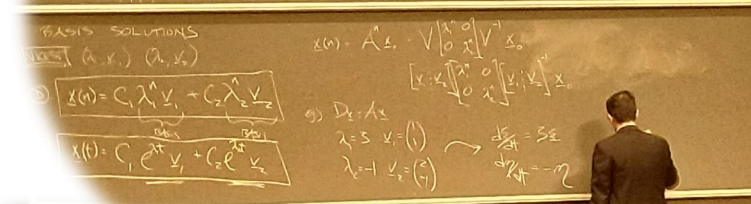
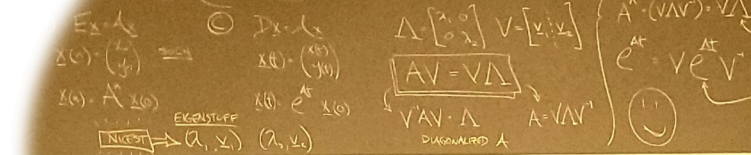
Malinconia, Ninfa gentile

Ippolito Pindemonte Vincenzo Bellini

Allegro agitato

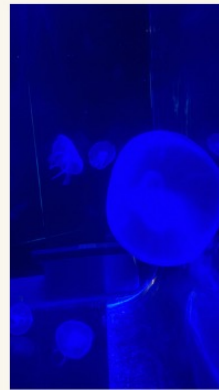
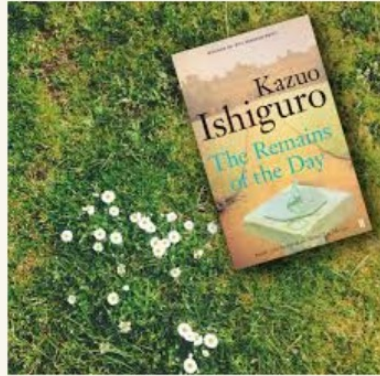
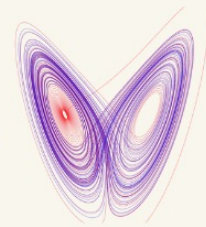
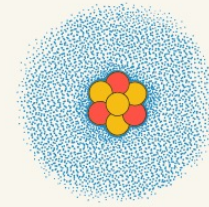






anish pandya

(he/they) | physics, math, computing | ut austin





Week 1 & 2 Outline

THEME: Don't worry. Don't worry. Don't worry. (this is a reminder to be deleted)

Week 1

Day 1 Orientation

Day 2 Orientation

Day 3 Meet Mentors | Learn about project ideas

Day 4 Tutorial and Begin meeting with SFI researchers

Day 5 Morning Workshop | Afternoon Scavenger Hunt (downtown)

Week 2

Day 1 Morning at IAIA at CSSS: David Krakauer talk | Porter Swentzell talk
Afternoon Meet with David Krakauer

Day 2 Tutorial | Meet with SFI researchers about projects and mentoring

Day 3 Tutorial | Meet with SFI researchers about projects and mentoring

Day 4 Tutorial | Meet with SFI researchers about projects and mentoring

Day 5 Let Education know your mentor | Start writing your project abstract (due 6/20)



Four Parts of Summer Success

Research Develop a plan and see it through with flexibility

Ethics Do work that is honest and transparent

Growth Learn new things, challenge yourself & be o.k. when things don't work

Support Help others reach their goals & develop a network that will last

Santa Fe Institute
Undergraduate Complexity Research program

SMART Goals for Science (from the NIH)



SPECIFIC

What will we accomplish?



MEASURABLE

How will we know when it is done?



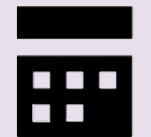
ACHIEVABLE

Is this realistic? Can we do this?



RELEVANT

Is it worthwhile? Does it help us towards the goal?



TIME-BOUND

When will this be accomplished?

Good to Know

In-house Email

- Who can use it; who receives it.
- Types of communication
- What to watch for: seminars, colloquia, guests

Tuesday is Library Tour

Dinners for Week 1

- Host: Mon with Cate; Tues with Carla; Wed with Leah; Thur with Arno; Fri with Carrie; Sat with Carla
- Meal Times at IAIA – How it is going to work

PROGRAM AGREEMENTS

Respect

- Treat everyone with respect at all times in all settings.
- Communicate clearly. Listen attentively. Let people finish.
- Trust your mentors guidance. Respect their effort and their time.

Openness

- Allow everyone to contribute. Embrace diversity.
- Be open to new ideas. Learn from different points of view.
- Support each other. Ask for help when you need it.

Accountability

- Arrive on time and be prepared. Don't keep people waiting.
- Try your best. Deliver what you promise.
- Set Goals. Challenge yourself. Learn and improve from mistakes.

Day 1 paperwork

Travel reimbursement

after lunch: complete an online form you will receive by email (Noyce)

- receipts
- flights, baggage fee, ground transport
- arrival & departure

SFI docs to sign

- also online via email (Box Sign request)
- code of conduct
- press release
- non-SFI activity report (often nothing to report)
- contract/waiver
- non-discrimination non-harassment
- confidentiality & nondisclosure

Mentor Matching & Project Selection

- Wednesday, June 7 = Day 3 of the program
 - Mentors will introduce themselves
 - Mentors describe their current research
 - Mentors (or mentor teams) will offer interesting research project(s)
- June 7–16 = Weeks 1 & 2 of the program
 - UCRs will request 1-to-1 meetings with mentors to discuss research interests & potential projects
- Chris Kempes & Melanie Mitchell are available to advise
- Co-mentors has lots of benefits; UCR collaborations can work well

Mentor Matching & Project Selection (cont.)

- Friday, June 16 = End of week 2 of the program

Mentors and UCRs will informally agree to work together; UCRs submit this information to the program staff for review

UCR co-directors will confirm matches individually with each of you

UCRs submit a project title to program staff;

You will receive a guidance on writing an abstract (due Tues 6/20)

- Projects will evolve over the summer and are a collaborative effort between the student(s) & mentor(s)
- Mentors are welcome to guide projects toward more assured success

Helpful Things to Know

How SFI works and helpful things to know

- Work spaces
- Meeting with SFI researchers
- Times for networking and socializing
- Enrichment opportunities
- Self-care
- Being strategic about food
- CSSS will arrive on Sunday, June 11
- CSSS sharing spaces
- Juneteenth – observed by UCR program
- July 4th – observed by SFI and UCR program

More Helpful Things to Know

Important items scheduled this summer (all on calendar):

- tutorials week 1 & 2 (be ready to start at 930am)
 - This Wed - becoming a well-rounded researcher
 - This Thu - getting organized
 - Next Tues - abstracts & flash talks
 - Next Wed - good code, github, +
 - Next Thur - slide and figure design
 - UCR alumni panel – ‘wish I had known’
- check-ins with EDU staff (randomly assigned)
- week 4 – flash talks
- week 5 – more tutorials
- week 10 – final talks
- Friday: workshop w/ Mikahla at Miller Campus (arrive 8:45)
- Stipend – first payment
- Slice of Science today. We'll meet in the reception area at its conclusion for an SFI tour.

10 Skills for UCRs

Add These Skills to Your Toolbox.

01. **Consistency & Reliability** Skills are wasted without consistency. Ideas can't progress without reliability. Build consistency and reliability and the rest will follow.
02. **Inquisitiveness** Question everything, even the obvious. Be genuine in your interest. Listen completely. Change your mind when presented with new evidence.
03. **Openness** Seek out the brilliance of people from diverse backgrounds. Absorb as much as you can from people around you. Try to understand disparate perspectives.
04. **Synthesis & Breadth** Develop the ability to synthesize what you know to achieve your long-term goals. Expose yourself to a lot of topics. Look for patterns and connections. Ideas come from unexpected places.
05. **Perseverance** Long-term success is not linear. Failure is part of the journey. If you're not failing, you're not challenging yourself.
06. **Discipline & Focus** Take control of your time. Block out distractions. Hone your concentration skills. Set daily goals. Prioritize your work.
07. **Self-Motivation** Take responsibility for your achievement and growth: this will set you apart from others. Self-directed learning is essential.
08. **Confidence & Communication** Know your value and what you contribute. Learn to ask for what you need to reach your goals. Work to express yourself clearly so that people understand your thoughts, ideas, and opinions.
09. **Dedication** "Perfect" is not the goal, whether personally or in your research or academics. Doing reliable work, interesting work, and meaningful work is the goal.
10. **Self-Care** Your mind and body need to rest. Breaks can lead to clarity and inspiration. Breaks can renew your enthusiasm and your sense of purpose.