

# Who is your Instructor?

Joshua Paul Barnard



# About Me

- 36 years old, male
- Northern California Coast Native



# Where am I from?

- Born and Raised in Santa Rosa, California.
- From Telecom Valley and the Sonoma/Napa Wine Region.
- Family on my Mothers side is from Fort Bragg, California



# Where Have I Lived?

- Sonoma, Mendocino, & Humboldt Counties in California.
- Nagoya, in Japan.



# My Parents

- My Mother was an Elementary School Teacher, Psychiatric Technician, and Caregiver.
- She is currently 74 years old and retired.
- My Father had a PhD in Psychology, and was a Supervising Psychiatric Technician.



# My Wife

- My wife and I met while I was traveling around Japan during a summer break from University.
- She is from the city of Chengdu
- We got married in Nagoya, Japan on July 2nd, 2017.



# Our Dogs

- We got Michio (the white dog) the day we got back to California from Japan.
- Sequoia (the black dog) is from a foster home up in Yreka, California.



# Our Orchard

- We live on my grandparents property, 5 miles outside of Fort Bragg, California.
- Planted a small garden and orchard, consisting of 15 fruit/nut trees and various berries, herbs, spices and flowers.



# What I'm Doing Now

- Graduate Student with Johns Hopkins University.
- Computer Science Instructor with Mendocino College
- Making my own business, to provide accommodations, & sell plants and food.



# My High School Experience

- My parents setup our home as a school, as my dad had a PhD in Psychology and my Mother had been a elementary school teacher.
- I attended the Santa Rosa Junior College under the High School Enrichment Program
- I am in the freshman yearbook for Maria Carrillo High School.
- Was active in Boy Scouts, a church youth group, and even attended high school prom.
- At the age of 18 I earned my first Associate Degree.



# How I Started Tutoring

- Started tutoring fellow students in my introductory computer classes at the age of 15.
- Began work at the Santa Rosa Junior College's Tutorial Center at the age of 16.
- Math Lab Drop-in and scheduled one-on-one tutoring sessions.
- Primary Subjects: Mathematics (Algebra and Statistics), and Computer Science.
- Additional Subjects: Psychology, Web Development, Game Programming, Graphic Arts.



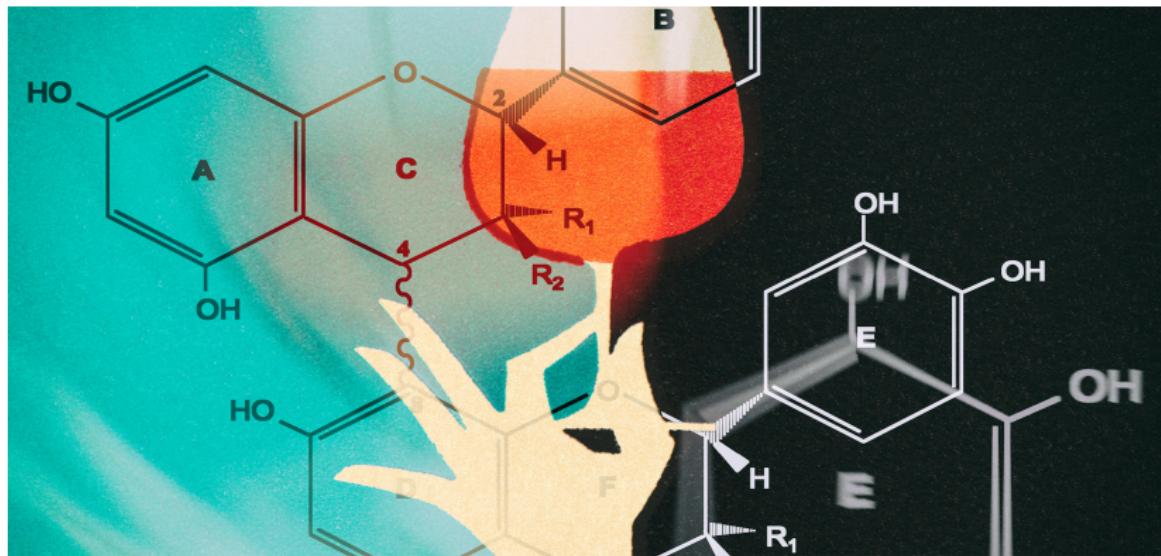
## Empire College and the Hotels/Hospitality Industry

- After backpacking around Europe for 4 months I decided to work in the Hotels and Hospitality Industry.
- I attended Empire College's Hospitality, Travel, Hotels and Wine Industry program
- This was during the Great Recession, when everyone was firing not hiring, and I was not able to get hired by any hotels.



# The Wine Industry and Hospitality

- I was able to get hired by the Wine Industry!
- Poured wine for Rosenbloom, J, and Murphy-Goode Wineries.
- Harvest Cellar Worker for Martinelli Winery.



# Humboldt State University

- I returned to the SRJC to study Chemistry and Oenology (The Scientific Study of Wine Making).
- Yet I preferred studying math, and wanted to do research.
- Transferred to Humboldt State University
- Major: Psychology
- Minors: Applied Statistics, and Applied Mathematics



# Academic Research

- Completed 2 pieces of undergraduate research as the only author:
- Reliability and Validity of the Health Efficacy Scale for College Students
- An Examination of Perfectionism and Body Esteem on the Eating Patterns of Male and Female College Students
- Found that I preferred to do the statistics and data analysis, and not the actual research.



# Santa Rosa Junior College, Cancer, and Japan

- My fiancee (now wife) was in Japan.
- Father was slowly passing away from cancer in Santa Rosa.
- So I returned to the SRJC to study Computer Science and Web Development.
- I would spend one semester in Santa Rosa, and the other in Nagoya studying online.
- Additional subjects included: Interactive Multimedia, Mathematics, Adobe PhotoShop, Project Management, Microsoft Excel, Business Management, Game Programming.



# Johns Hopkins University and Data Science

- My wife and I were planning to move out to Texas, and for me to start a new career in Data Analysis, or Web Development.
- But this was in the Spring of 2020...
- So we moved to Fort Bragg and I applied to a Graduate School.
- I was accepted into Johns Hopkins Universities Whiting School of Engineering's Masters of Science program in Data Science.



# Tutoring and Teaching at Mendocino College

- My wife started taking Art Classes at Mendocino College in the Fall of 2021.
- So one time I submitted a general application, and was eventually hired to be an embedded tutor for Applied Mathematics and Statistics, for Spring 2022.
- During the Summer I was hired to be an instructor in computer science, & then in digital arts and media.
- Making Fall 2022 my first semester as a college instructor.



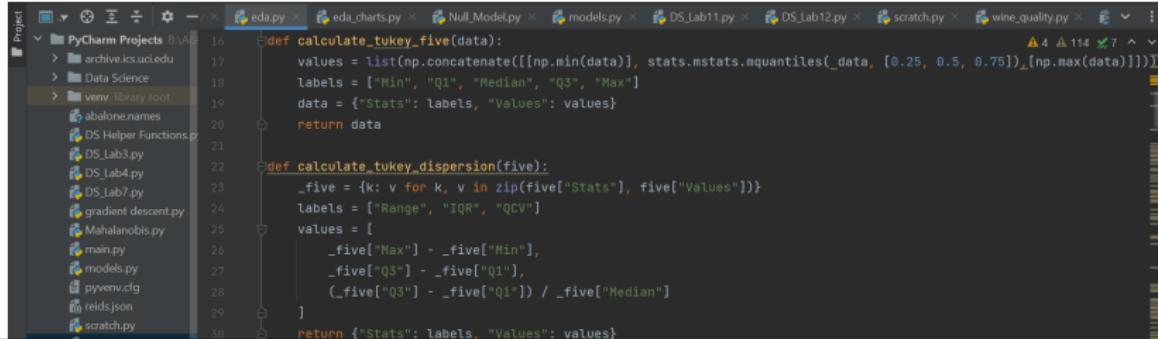
# Computers

- My first computer was given to me by my Father, it was an old Amiga system.
- My family was online with dial-up in 1995, less than a year after the first website was ever launched.
- I have always been fascinated by computers and the internet.
- Started repairing computers as a side job as early as 15.



# Programming

- Started programming casually, not even realizing I was actually programming.
- EasyUO was my first programming experience, making scripts for an MMO game I played.
- After that I learned HTML and how to write nested-IF functions in Excel.
- Now I have experience programming in: R, Python, Java, SQL, HTML5, CSS3, JavaScript, C++



The screenshot shows the PyCharm IDE interface with the following details:

- Project:** BVAE
- File:** edu.py
- Code Snippet:**

```
def calculate_tukey_five(data):
    values = list(np.concatenate([[_np.min(data)], stats.mstats.mquantiles(_data, [0.25, 0.5, 0.75]), [_np.max(data)]]))
    labels = ["Min", "Q1", "Median", "Q3", "Max"]
    data = {"Stats": labels, "Values": values}
    return data

def calculate_tukey_dispersion(five):
    _five = {k: v for k, v in zip(five["Stats"], five["Values"])}
    labels = ["Range", "IQR", "QCV"]
    values = [
        _five["Max"] - _five["Min"],
        _five["Q3"] - _five["Q1"],
        (_five["Q3"] - _five["Q1"]) / _five["Median"]
    ]
    return {"Stats": labels, "Values": values}
```

# Board Games

- I've always loved board games, from as early as I can remember.
- My favourite board games include:
- Risk
- Monopoly
- Settlers of Catan



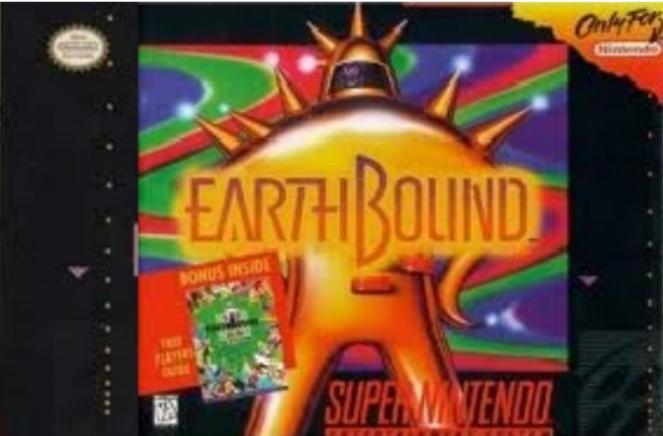
# Card Games

- Magic: The Gathering
- Poker: Texas Hold'em



# Video Games

- SNES: EarthBound & Chrono Trigger
- PC: Ultima Online, Baldur's Gate



# Cryptocurrency, Generative Artwork & NFTs

- I knew of bitcoin, litecoin, ripple and dogecoin when they were first made, but I didn't get into crypto until 2017.
- In 2021 I became interested in NFTs, as a way to publish artwork individually without agents or dealers.
- This is when I first started to create generative artwork, by making algorithms in R & Python.
- Biggest sale has been an NFT on OpenSea.io for over \$700.



# North Bay Fencing Academy

- Started fencing at the Santa Rosa Junior College when I was 15 years old.
- Competed in a few UC fencing tournaments.
- Continued fencing at the North Bay Fencing Academy.
- Fenced occasionally in Humboldt at various locations.



# Humboldt Circus

- A friend from home transferred to HSU before me, and he got me into the Humboldt Circus.
- I had never been on stage before this.
- My Toys: Yo-Yo, Diabolo, Spinning Tops, Juggling



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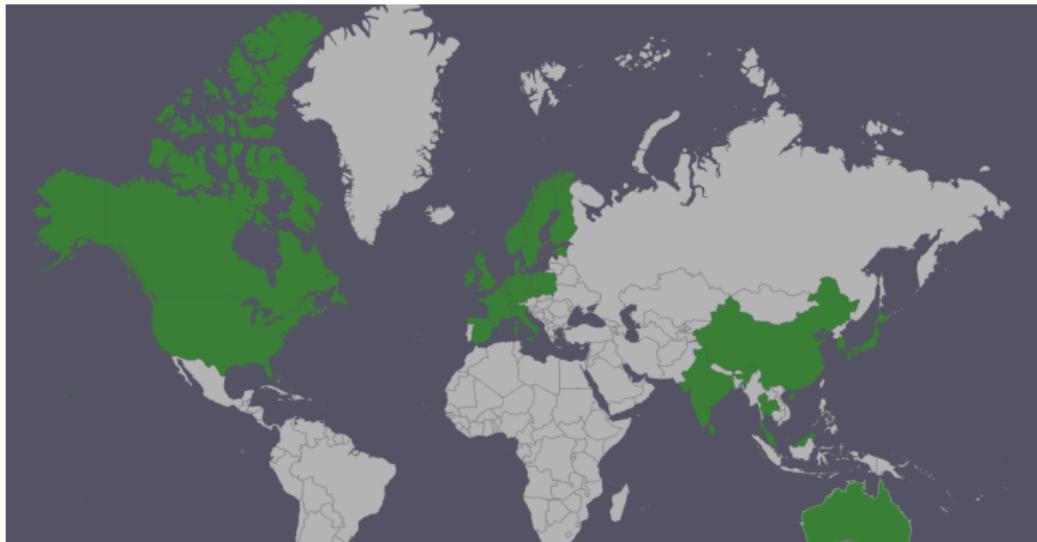
# Hiking, Camping, Nature & Scouts

- I'm an Eagle Scout.
- Traveled around parts of the USA, Europe and Asia with various Scout Troops, as a scout and assistant scoutmaster.
- I love hiking, swimmable rivers and disperse camping.



# Travel Experiences

- I've been to over 30 individual countries.
- Countries I've visited twice: Denmark, Finland, Ireland, Thailand
- Countries I've visited 3 or more times: Japan, China.



# Children & Family

- My wife and I hope to have our first child next year.
- We hope for a family with 3 children.
- Eventually we want to add some cats and ducks to our family.



## Campground & Business

- We have a special variety of raspberry which is white, delicious, and grows wonderfully on our property.
- So we are creating our own company: White Berry Farm
- We will provide camping through AirBnB and HipCamp
- Along with selling fruits and plants from our orchard.



# Gaming Industry & High-Tech

- The "silicon valley of gaming" is in Marin County.
- Cryptocurrency and NFTs are the future of online gaming.
- The gaming industry incorporates many of the skills which I have, such as: Programming, Graphic Arts, Web Development, Data Science, Artificial Intelligence.



Game Designers



Computer Programmers



Animators



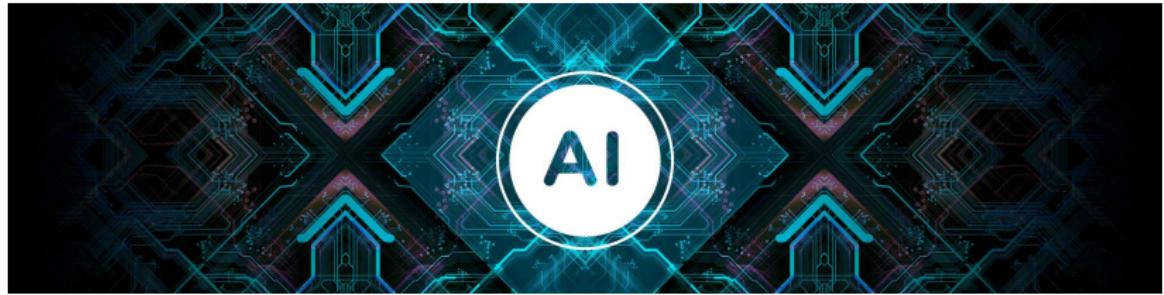
Software Developers



Audio Engineers

# Graduate School & PhD

- Finish my Masters Degree in Data Science.
- Slowly study for a PhD in Artificial Intelligence from Johns Hopkins University.



# End Card

- Joshua Paul Barnard
- Computer Science Instructor
- Mendocino College
- This Presentation was made in  $\text{\LaTeX}$
- For the Fall 2022 semester.
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