Samir Ghosh

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vr dev, makerspace management, software engineering, computational linguistics, creative code, lowercase words

Education

B.S. Computational Linguistics USC '18
Deep learning for syntax models, Forensic linguistics

B.A. Cognitive Science USC '19

Experience

Assistant Director, USC Harman Academy for Polymathic Study   Jan 2019 - Present
The Ahmanson Lab at the Harman Academy provides a makerspace facility, produces projects, and holds workshops
- Project manages and contributes to over 12 VR, mobile app, microcontroller, and humanities research projects with about 50 students and professors every academic year
- Acquires funding, speaking engagements, and resources for professors in disparate disciplines by helping secure grants, holding highly attended panels, and training technically skilled students
- Teaches a hands-on workshop series spanning deep learning, VR and AR development, computer graphics, robotics, 3D printing, and issues in privacy rights and AI
- Maintains makerspace resources for students and professors (weekly usage 100 to 250 people)
- Produced various VR and installation experiences including collaborating with the California Science Center to design a moon colonization exhibit, and working with The Vatican and art historians to exhibit the Stanza della Segnatura

DevOps Engineering Intern, Intel Corporation   Summer '16, Summer '18
My division managed and used massive server farms and supercomputers for in-house computing
- Implemented a scalable, real-time cybersecurity threat responder and visualization system using OSSEC, Wazuh and Elasticsearch (200k+ machines monitored per instance)
- Extended a hardware agnostic firmware service tool from CLI to a web interface using Node.js and various front-end frameworks
- Created real-time visualizations of server availability and update status during scheduled server farm downtime using Kibana and Python scripting

Software Assistant for Behnaz Farahi   Aug 2016 - Dec 2017
Behnaz Farahi produces internationally acclaimed fashion pieces, integrating cutting edge wearable technology
- Designed computationally efficient microcontroller software to integrate various sensor data with lights, pneumatics, and motor driven systems concealed in 3D-printed dresses
- Repaired electronics and modified code under time pressure at exhibitions, runway shows, and film shoots
- Communicated technical information to electrical and mechanical engineers, models, and production crews

Co-founder, clevergrads.com   Dec 2016 - July 2017
This profitable student-run business sold affordable gowns and sashes and undercut USC
- Researched, analyzed, and exploited competitors' supply chain and marketing strategies
- Conducted and rapidly iterated on multi-language print and social media marketing campaigns (5k reach)
- Designed and worked in order packaging, delivery, sales and inventory management

Research Assistant, USC Brain and Creativity Institute   Mar 2015 - Aug 2015
The USC Brain and Creativity Institute explores a variety of topics through Neuroscience
- Filtered and cleaned EEG data for Meditation and States of Consciousness studies
- Attended seminars combining neuroscience with law, religion, meditation, and cognitive modeling

QA Intern, Enlighted Inc.   Summer '14
Enlighted makes intelligent light systems for commercial buildings
- Built and designed test rigs for infrared sensors to verify output voltages
- Designed and implemented tools and processes to fix mass quantities of faulty units

Teaching

Workshops + Generative Art-a-thons, Ahmanson Lab at USC   Fall 2020
- p5.js 9/21
- VR with Mozilla Hubs 10/5
- Glitch + D3 11/9

Polymathic Making Workshops, Ahmanson Lab at USC   Spring 2020
- Dance, VR, and Photogrammetry 1/21
- Introduction to 3D Printing and the Makerbot Replicator (5th Gen.) 2/4
- Data Surveillance and Digital Rights (get tech woke) 2/18
- Practical Arduino 3/10
- Deep-fake Detection 3/24
- Introduction to Creative Code 4/7
- Applied Neural Networks 12/3

Polymathic Making Workshops, Ahmanson Lab at USC   Fall 2019
- Introduction to 3D Printing and the Makerbot Replicator (5th Gen.) 9/3
- Drone + Photogrammetry 9/10
- Introduction to Unity 9/17
- Practical Arduino 9/24
- Wearable Technology 10/1
- Get your own climate data 10/15
- Augmented Reality for Beginners 10/22
- Digital Rights (get tech woke) 11/5
- Deep-fake Detection 11/12
- WebVR 11/19
- Applied Neural Networks 12/3

Speaking

STEM Speaker Series, Katherine Johnson STEM Academy   3/6/20

Promise and Peril of Algorithmic Living, USC Visions and Voices   4/7/18