Shivansh Rustagi

Palo Alto, CA · shivansh@ucsc.edu · (650) 798-9389 · https://shivan.sh/

Education

The University of California, Santa Cruz — Santa Cruz, CA

BS Computer Science / Statistics Minor *GPA: 3.86 / 4.00* — Sep 2018 - Jun 2022

Coursework: Algorithms, Data Structures, Computer Architecture, Natural Language Processing, Machine Learning, Mobile Applications, Linear Algebra, Discrete Mathematics, Vector Calculus and Analytic Geometry, Ordinary Differential Equations, Probability Theory, Applied Bayesian Inference

Experience

Applied Machine Learning Lab @ UCSC — Santa Cruz, CA

Researcher — Jan 2020 - Present

- In team under Professor Narges Norouzi, designed a research study to apply natural language processing and deep learning to track and predict emotional state for psychotherapy patients with various mental health disorders.
- Built benchmark data set from Reddit posts and designed neural system for emotion-tracking task.

Huddl.ai — Mountain View, CA

Software Development Engineering Intern — Mar 2020 - Present

- Rewrote Docker image deployment pipeline from scripts + Makefiles into Go in order to significantly reduce memory usage + local deployment time.
- Rewrote internal logging library (Golang) to improve memory use and support concurrency.

ICURO — Santa Clara, CA

Deep Learning and Embedded Systems Intern — Jun 2019 - Sep 2019

- Designed automatic license plate recognition systems through convolutional neural networks in Python, TensorFlow, and DarkNet (YOLO v3).
- Designed 8-bit-quantizable models with decreased inference times to run on UNIX embedded systems (Google Coral Dev Board).
- Created Python library to synthesize California license plate image data, including data obfuscation and transformation options.

Santa Cruz Artificial Intelligence — Santa Cruz, CA

President — Jun 2019 - Present

- Created organization at UCSC to foster undergraduate interest in the field of machine learning.
- Designed introductory machine learning curriculum (with executive team).

Skills

Programming Languages:	Python, C, JavaScript (ES6), Java
Tools/Frameworks:	PyTorch, Numpy, Pandas, Spacy, NLTK, OpenCV, PIL, MatPlotLib, TensorFlow, TensorFlow Lite, Flask, Android, SASS, HTML/CSS/JS, Express.JS, Node.JS, React.JS, Next.JS, Firebase, MongoDB, Docker, Kubernetes, Unix, Git, REST

Projects

SMLR *Python (Flask, Google Cloud Speech Processing), Node.JS (EJS, Express.JS, Firebase)*
https://devpost.com/software/forest-plt0m9
Created at Hacktech 2019. Transcribed audio from YouTube videos, piped into Latent Semantic Analysis implementation in Python to summarize chunks of text in parallel.

Forest (Amazon Sponsor Prize Winner) *Python (BeautifulSoup4, AWS Lambda)*
https://devpost.com/software/cruzhacks-alexa-skill
Created Alexa Skill for UCSC Dining Hall Menu and Student Dining Account Information. Scraped web page using regular expressions and removed non-entree items to simplify speech-to-text feedback.

Cue *Node.JS (Google Cloud Speech Processing, Natural JS), Natural Language Processing*
https://devpost.com/software/cue-doisjy
Created at MHacks 2019. Provides live visual clues to help vocabulary acquisition by transcribing audio, tagging parts of speech, and separating and color coding content words.