Chetan Surana

Creatively curious | Seeking Software Development Engineer role | Open to relocation
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EDUCATION

- **M.S in Computer Science, Arizona State University, Tempe, AZ, 4/4 GPA**   2019 - 2021

Engineering Graduate Fellowship recipient, Research Area – Secure Computation, Advisor - Ni Trieu

- **B.Tech in Computer Science, Ramaiah University of Applied Sciences, Bangalore, India, 3.7/4 GPA**   2015 - 2019

EXPERIENCE

Graduate Research Assistant: Arizona State University, Tempe, AZ   06/2020 – 05/2021

- Collaborating on Federated Analytics based Contact Tracing (FACT) project for contact tracing, vulnerability analysis and mobility pattern prediction, funded with a $200,000 grant from NSF, and Google AI for Social Good award.
- Working on research and development of a secure contact tracing framework with a hybrid Bluetooth plus GPS protocol, a novel Delegated Private Set Intersection Cardinality protocol, and hotspots detection using Secure Aggregation.

Academic Tutor, Computer Science: Arizona State University, Tempe, AZ   03/2020 – 08/2020

- Aided students in several Computer Science courses and fundamental topics, pertaining to C++, Java, Python, Data Structures and Algorithms. 4/4-star rating by students, endorsed for Customer Service and engagement by manager.

Research Administrative Aide, SSEBE: Arizona State University, Tempe, AZ   05/2020 – 08/2020

- Assisted in data analysis and development of process maps using Business Process Modelling Notation.

Front-end Web Developer Intern: Indegene Inc., Bengaluru, India   06/2018 – 07/2018

- Led design and implementation of front-end interface for the HR employee facing dashboard PRIDE, integrated with tools for employee search, ticket management, business unit review, periodic engagement, and others.
- Redesigned and improved several company webpages with user experience in perspective, applying Responsive Web Design and Material Design principles, increasing aesthetics and uniform accessibility.

TECHNICAL SKILLS

- **Application Development & Programming:** Python, Java, C, C++, Haskell, Spring and Qt Framework
- **Data Science, NLP, ML & AI:** Python, R, Tableau, MATLAB, Keras, TensorFlow, Rasa
- **Mobile App and Web Development:** HTML5, CSS3, JavaScript, D3.js, PHP, MySQL, Android, Flutter, Bulma, Bootstrap

PROJECT WORK

Yelp Dataset Visualization   04/2020

- Redesigned Yelp restaurant search platform from user perspective with intelligent visualizations, including bubble chart, interactive map, ratings trend line chart and radar chart, frequent checkins heatmap, and review sentiment analysis.

Interactive Visualizations from Historical Cost Data in Budget Books to deliver Valuable Insights   01/2020

- Used Tableau to mine and clean cost data of a construction project in quarterly Budget Books (PDFs) from 2014-2019.
- Created interactive visualizations to assess impact of schedule delays on project costs, identification of major cost and risk elements. Co-presented the work with Simplar Research Institute at WCCC Project Controls Summit, Los Angeles.

Cardiovascular Disease Risk Prediction from Carotid Intima-Media Thickness (CIMT)   09/2019 – 11/2019

- Implemented open snakes(Active Contour Model), to segment Lumen Intima and Media Adventitia interfaces in ultrasound images of the Carotid artery to measure CIMT, using which risk of Cardiovascular disease can be predicted.

Multi-agent Reinforcement Learning (MARL)   09/2019 – 11/2019

- Designed and implemented a MARL algorithm where two robots learn a policy automatically to pick books designated for each robot. Used Python and ROS and simulated the robots' behavior successfully in Gazebo.

Intelligent Chatbot for Automated Requirements Elicitation and Classification   02/2019 – 04/2019

- Developed a chatbot to elicit formal system requirements from interaction with stakeholders. Applied machine learning to classify the elicited requirements into Functional and Non-functional categories.
- First author of Research Paper on the work presented and published in 2019 4th IEEE RTEICT Conference proceedings.

ACTIVITIES

Researcher at ASU Secure Computation Lab. Co-founder of Debug & Cynergy, Computer Science clubs at Ramaiah University