Stephen Dong

dong.stephen11@gmail.com https://github.com/PikaSannnnn linkedin.com/in/sdong1231 dongstep.com

Skills

Languages: C++, C#, C, Python, MATLAB, Java, PHP, Bash, SQL/NoSQL, HTML, CSS, Javascript
Tools/Skills: Git, GitLab CI/CD, AWS, Azure, PyTorch, Linux, Cuda, Arduino, Socket Programming, TCP, UDP, Jira, Confluence, OculusVR, IntelliJ, CLion

Education

University of California, San Diego, CA - M.S. ECE Machine Learning and Data Science *September 2023 – Present*

- **Main Courses**: Visual Learning, Natural Language Processing, Statistical Learning, Nanoscience & Nanotechnology, Medical Devices, Principles of Biomedical Imaging, Linear Algebra and Applications

University of California, Riverside, CA - B.S. Computer Science (GPA: 3.95/4.0) *September 2019 – March 2023*

- **Main Courses**: Software Construction, Computer Networks, Machine Learning, Big Data, Data Analytics, Data Structures & Algorithms, (3D) Computer Graphics, Virtual Reality (VR/AR), Operating Systems, Assembly Language, Compiler Design, Discrete Structures

Professional Experience

Panasonic Avionics Corporation (PAC) – MTS I Software Engineer *March 2023 – January 2024*

- Transformed a testing software into an SDK using C++, Bash, and PHP for seamless 3rd party hardware verification.
- Team lead in developing a new chatbot aimed at streamlining 20% of the automation testing development cycle.
- Responsible for sustaining a Linux simulator designed to verify PAC aircraft products.

Academic Resource Center, UCR - Supplemental Instructor *September 2020 – March 2023*

- Formulated engaging lesson plans to assist the students in understanding difficult concepts.
- Utilized various methods to introduce new strategies for students to use for studying and problem solving.
- Created various coding problems as extra practice for students outside of class.

Center for Integrative Bee Research, UCR - Undergraduate Research Assistant *February 2022 – January 2023*

- Developed machine learning algorithms with Dr. Hyoseung Kim.
- Parsed and pre-processed a collection of bee audio data through Mel spectrograms.
- Trained an SVM and CNN to recognize and classify when bees are present in the audio files.

Projects

Receipt Splitter App - ML Software Engineer *July 2024 – Present*

- Developing an app to streamline bill splitting using itemized receipt images.
- Designing an ML model with CRAFT to generate individual bounding boxes of each item in receipt images.
- Integrating TrOCR to rapidly extract item details and generate a JSON file of the receipt.

MassageBot – ML/CV Software Engineer *March 2024 – June 2024*

- Constructed an object detection algorithm to identify key body parts of a human posterior in images.
- Assembled the YOLOv3 architecture for real-time body part recognition with 85% accuracy.
- Fine-tuned the model to better distinguish neighboring muscles and detect changes in orientation.

DockAutomate - AI Software Engineer *January 2023 – March 2023*

- Designed an intuitive app using Flask for crane operators to minimize port operating costs.
- Implemented heuristics to find the best actions to load and offload a list of cargo containers from a ship.
- Analyzed and communicated goals and risks with the customer and possible shareholders.

Unmanned Aerial Systems - Lead and Member *October 2019 – February 2022*

- Led a team to design, build, and program an Unmanned Ground Vehicle (UGV).
- Designed an altitude detection system using an Arduino and a BMP388 altimeter for the UGV.
- Programmed the UGV to be dropped from high altitudes and perform missions on the ground.

Honors & Awards

- UCRPC Freshman First Place (2020)
- BCOE Faculty Scholarship (2022)
- Dean's and Chancellor's Honors List (2019 – 2022)