Jason Chen

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EDUCATION

University of Florida — **Gainesville, FL**
Triple Major in Computer Science, Statistics, and Mathematics — *September 2017 - **May 2021***

- GPA: 3.99/4.00
- Coursework: Analysis of Algorithms, Machine Learning, Abstract Algebra, Operating Systems

TECHNICAL SKILLS

- **Programming** - C/C++, Java, JavaScript, LaTeX, Python
- **Frameworks/Technologies** - Firestore, MongoDB, Git, PyTorch, Rails, React-Redux, Kafka, Vue

EXPERIENCE

Software Engineer Extern — **Gainesville, Florida**
Infotech, Inc. — *Spring - Summer 2020*

- Developed a customer facing **Vue** + **Rails** internal service called Subscription to facilitate client bidding and payment navigation
- Collaborated with other development teams to integrate with existing systems and delivered regular updates and presentations to management
- Utilized an Agile methodology to complete project ahead of schedule

Software Engineer Intern — **Sarasota, Florida**
Imerza, Real Estates Developments — *Summer 2019*

- Traffic Analytics: Path Tracking, Heat Mapping, Occupancy, Capture Rate
- Developed Real Time Object Detection **React** web API on high resolution pixel-streamed video frames
- Customized and retrained core tensorflow models to optimize performance

Undergraduate Research Assistant — **Gainesville, Florida**
Deep Learning & Representation Learning, *NSF Center for Big Learning* — *Spring 2019 - Present*

- **CVPR 2020** - Consciouness Feedback for Visual Representation Learning (Under Review)
- Designed novel neural network architecture **MoCoSuper** inspired by simCLR, MoCov2, and latent canonicalization
- Implemented a noval alternating supervision to replace latent canonicalization and outperformed MoCov2
- **IROS 2019** - Adaptive Leader-Follower Formation Control and Obstacle Avoidance via Deep Reinforcement Learning
- Enabled multiprocessing for efficient video frames handling, conversion of videos into image frames, divided into train validation and test
- Augmented data with random crops, flips, and color jittering, set up the RL enviroment for follower/leader tracking
- Developed software for autonomous agent

Computer Science Teaching Assistant — **Gainesville, Florida**
Computer Science Engineering Department — *Spring 2018 - Spring 2019*

- Courses: Computer Organization and Discrete Mathematics
- Made ARM Cortex-A8 and MIPS assembly project, wrote instruction guides for assignments and exams

RECENT PROJECTS

AirPick (http://airpick.uflcsa.org/) — *May 2019 - Present*

- An airport pickup coordinator platform dedicated to help new international students find pickup volunteers through online matching
- Served 244 users, 176 requests, and completed 119 trips in 2019, usually experience peak traffic in the summer
- **React** + **Node** web application developed **RESTFUL API** for backend CRUD operations with **Express** and **Mongoose**
- Implemented server-side caching with **Redis** that lowered load latency by 30%
- Featured with an admin view and E-mail monitoring system using **Node** that notifies the admins when a user makes multiple requests within a minute and enabled canceling requests feature to prevent fraud

InMotion (https://inmotional.herokuapp.com/) — *HackDuke 2019*

- A web-based Emotion Visualizer that graphs composition of facial expression over time
- Highly transactional application with AI analysis powered by **Firestore**
- Adaptive frame rate design and the flow of emotion with dynamic animation

Waste.AI — *Fall 2018 - Spring 2019*

- A software that identifies object using visual analysis based on a deep learning neural network
- Enabled large-scale Automated Management of Recyclable and Problematic Materials in Discarded Construction Debris
- Improved **Pytorch** ResNet on 4 separate data sets provided by the liaison: 10,167 images, 13 classes of recyclables
- Adopted LabelBox for manual segmentation and annotation

Image Translator — *VandyHacks V 2018*

- Developed a **Chrome Extension** that instantly translates text on embedded images. vanilla **HTML**/**CSS**/**JavaScript**, and **Google Cloud APIs**
- Identify text in the target image with **OCR** (**Cloud Vision API**) then translate text with **Translation API**

AWARDS

- United States of America Mathematical Olympiad (**USAMO**) Qualifier, 2016
- International Collegiate Programming Contest (**ICPC**) South East Regional 2nd Place Winner, 2019
- University Economic Society Spring Investment Challenge Winner, 2019
- Gartner Group Information Technology Fund, CS Department 2020 Scholarship

LEADERSHIP

UF Programming Team Lead — *Fall 2019-Present*

- Competed in ACM Programming Competitions focusing in data structures and algorithms
- Participated in regular practices and meetings to prepare for competitions
- Led meetings and taught competitive programming topics such as algorithm complexity