Andrew Wan

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EDUCATION

University of California, San Diego **La Jolla, CA**
B.S. Nanoengineering , 3.62 GPA *June 2019*

EXPERIENCE

J.P. Morgan Asset Management **Taipei, Taiwan**
Software Engineer *Nov 2021 - Present*
- Designing and implementing backend business layers with Spring Boot
- Improved performance of fund management software by 15%
- Implementing new user interface features with Angular
- Converting current Angular applications to React applications

Asgard System, Inc. **Taipei, Taiwan**
Software Engineer *Oct 2020 - July 2021*
- Contributed to an in-house UI library by creating reusable UI components that increased development efficiency by 30%
- Led frontend projects with over thousands of users spanning multiple applications
- Designed and implemented various front-end components with Vue and React
- Designed and developed new APIs using Java Spring Boot to improve user experience and overall app functionality
- Served as a bridge between frontend, ui/ux designers and backend developers

Asgard System, Inc. **Taipei, Taiwan**
Software Engineer Intern *June 2020 - Sep 2020*
- Designed and implemented a feature-rich user interface using React and Redux to handle and display data
- Developed reusable functions and integrated them with existing Javascript libraries to streamline the frontend development process and decrease development time by over 40%

Sirbuly Lab at UCSD **La Jolla, CA**
Research Assistant *Mar 2018 - Jan 2019*
- Assisted PhD candidates on projects related to Piezoelectric Composite Materials and Devices
- Created mechanically complaint, robust sensors and generators that minimally compromise on electrical performance
- Built and designed electrospinning station and utilized electrospun barium titanate nanofibers with high aspect ratios to form thin flexible mat nanowire sensors
- Performed breathing rate and heart monitoring with devices and data analysis with MATLAB
- Led and performed materials characterization, material performance testing with SEM,EDS and XRD
- Developed and tested products to verify successful material applications and mechanical performance

PROJECTS

Traffic Light Classifier ↗
- Implemented a computer vision model with opencv capable of classifying images of traffic lights with a 92% accuracy
- Performed feature extraction with two-step masking and a brightness feature using HSV color space

Password Vault ↗
- Designed and implemented for people to easily and securely manage their passwords. Uses Django Rest Framework's Token Authentication.
- Front end built with Next.js, Tailwind CSS and Material UI
- Back end built with Django and SQLite

FoodPicker ↗
- Designed and built for people who have trouble deciding what to eat. Showcases images and provides recipes of different dishes with the help of the Unsplash and Edamam API
- Front end built with React and Material UI
- Back end proxy built with Node.js and Express.js

Portfolio Website ↗
- Built with Next.js, Tailwind CSS, Node.js, Express.js and MySQL

Hydrophobic Silica Nanoparticle
- Developed superhydrophobic coatings with a contact angle greater than 150 degrees
- Performed synthesis of PDMS coated silica nanoparticles and silane treatment of hydrophobic coatings
- Designed and conducted durability tests, product failure analysis and cost analysis

Global TIES One Village Philippines ↗
- Assisted NGO Gawak Kalinga in providing affordable solar-powered lanterns to villages in the Philippines
- Designed and built solar powered lantern prototypes
- Designed and implemented new lightbulb designs to increase lightbulb stability and streamline the lantern construction process

SKILLS

Programming Languages	Javascript, Python, Java, SQL, TypeScript, HTML, CSS,
Technologies	React, Django, Spring Boot, Vue, JQuery, Node.js, Express.js,
	Next.js, Angular, Redux, Vuex, Git, BootStrap, Tailwind CSS
	Material UI, Vuetify
Spoken Languages	English, Mandarin