Shuwei Wang

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EDUCATION

University of Southern California | Los Angeles, CA   Jan 2022-Dec 2023

Master of Science, Electrical Engineering   GPA: 3.9 / 4.0

Shandong University | Shandong, China   Sep 2017-Jun 2021

Bachelor of Engineering, Technology & Instrument of Detection & Control   GPA:82.8 / 100

PROJECTS

Browser Performance Testing of Web Assembly-based Machine Learning Models   Jan 2023-Now
- Built image recognition environments for three main browsers using Selenium, utilizing the ImageNet classification method and model.
- Conducted automated testing methods and test content, including using Dev Tools to compare performance data.
- Utilized Chrome's V8 protocol tool to compare performance differences on Web Assembly applications.

Business Search based on Google Cloud Platform   Sep 2022-Oct 2022
- Built a backend using Python and NodeJS with APIs from Yelp, Google, and IP and pass to the frontend.
- Accomplished frontend development using JS, HTML5, and Angular, including Typescript, to implement required functionalities and applied Android studio to build an App.
- Modeled an appointment reservation function and cached data to facilitate input writing and extraction.

Trojan Map, Los Angeles, CA   Jun 2022-Aug 2022
- Adapted OpenCV to visualize all the locations data and dynamically show the shortest paths result calculating by backtracking ,2-opt and 3-opt Heuristic algorithms on the map and wrote a document to save distance results.
- Realized functions such as tolerating small error for typo input and displaying classified locations by category.

Socket Programming for Digital Transactions, Los Angeles, CA   Feb 2022-Apr 2022
- Implemented a version of a blockchain service called Ali Chain based on C++.
- Established communication between main server and backend-server providing several modes of operations.
- Provided final report of each client including all the transactions and optimized UI to improve user experience.

INTERNSHIP EXPERIENCE

Supply chain Intern | Schneider Electric | Shanghai, China   Jun 2021-Dec 2021
- Collected and organized supply chain-related data and analyzed it to support decision-making, and wrote reports to demonstrate the actual problem-solving situation of the department.
- Assisted the recruitment project of new graduates, and conducted campus interviews and presentations.
- Collected logistics data, found distribution patterns of logistics usage, and predicted usage bottlenecks.

R&D Assistant | JENOPTIK | Shanghai, China   Jul 2020-Dec 2020
- Confirmed the requirements of the R&D department members, improved measurement drawings, reviewed issues such as optimizing material wear for door hinges, and provided feedback to the mechanical engineer.
- Researched the conceptual design and platform for an optical lens system to measure material accuracy.
- Responsible for the SAP process requirements of two independent R&D departments.

Project management Intern | Crown Equipment | Suzhou, China   Jul 2019-Aug 2019
- Completed project ELECTRICAL SAFETY INSPECTION, arranging crucial person for each part with manager. Held pre meeting with supervisor, and conducted on-site inspection with warehouse staff finally.
- Carried out project SAFETY QULIFICAITON. Implemented qualifications for data indexing from over 200 datasets within two weeks with team of 5, and presented qualifications comparison to different type chemicals; produced 2 statistical reports and reported to manager.

TECHNICAL SKILLS
- **Skills:** JavaScript / HTML5 / Python / C++ / Altium Designer / Mandarin(native)

ACTIVITIES
- **Clubs: USC Badminton Club, Dancing club**

王淑玮

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教育背景

2022.01-2023.12	**University of Southern California**	**Electrical Engineering (GPA:3.8/4)**
2017.09-2021.07	**山东大学** **机电与信息工程学院**	**测控技术与仪器（GPA: 83/100）**

项目经历

2023.01-至今   **基于 Web Assembly 的机器学习模型浏览器性能测试**
➢ 使用 selenium 搭建 Chrome ,Edge 以及 Firefox 的图像识别测试环境，使用 ImageNet 的分类方法及模型
➢ 通过 Chrome 的 v8 protocol 性能工具研究在使用 Web Assembly 与否的性能差距并与 WebGL 比较
➢ 研究自动测试方法与测试内容，合理通过 Dev Tool 比较性能

2022.09-2022.10   **基于 Google Cloud Platform 的商业搜索设计（网页和 Android）**
➢ 使用 Python 和 NodeJS 搭建后端，调用 Yelp、Google 和 Ip API 进行搜索交互，获取 JSON 文件并将有效元素传递至前端。通过 JavaScript、HTML5 和 Angular 包括 TypeScript 完成前端功能。
➢ 编写预约功能，使用本地存储缓存数据以编写和提取输入，确定无法重复预约等功能。
➢ 在网站和编写的 Android 应用程序中集成来自 Yelp 的搜索相关详细信息、集成 Google 地图服务和评论功能。

2022.07-2022.08   **基于 C++的地图程序设计**
➢ 收集数据并使用机器学习的基本方法处理得到有效数据。
➢ 使用 OpenCV 适配可视化所有位置数据，并动态显示通过回溯、2-opt 和 3-opt Heuristic 算法计算的最短路径结果在地图上，并编写文档保存距离结果。
➢ 实现了容错输入和按类别显示分类位置及最短路径等功能。

2020.12-2021.05   **基于 IMU 的自动调平系统**
➢ 选择合适的芯片及器件并设计周边电路，在 Altium Designer 中绘制系统电路原理图及 PCB 图。
➢ 在 Keil 环境中根据实现功能编写 c 语言程序，包括微控制器的通信、按键模块及控制模块等。
➢ 形成两层 PID 闭环控制。确定 PWM 频率控制步进电机，实现平台的实时调整。

实习经历

2021.07-2021.11   **施耐德电气（中国）有限公司**   **供应链部门实习生**
➢ 收集和整理供应链相关的数据并进行分析，以支持决策制定，编写报告，以展示部门的实际问题解决情况
➢ 协助供应链部门的应届生招聘项目，进行校园面试和校园宣讲，初步挑选合适候选人，调查职位的竞争情况。
➢ 收集和分析物流数据，寻找物流的使用分布模式，以预测使用瓶颈。

2020.07-2021.01   **业纳（上海）精密仪器设备有限公司**   **研发部实习生**
➢ 确认研发部门部员需求，改进测量图纸，复核问题。如：开门铰链磨损材料优化等,并反馈给机械工程师。
➢ 研究确认并搭建光学镜片系统的概念图及平台，用于检测材料精度，在三个礼拜中搭建光学平台并通过检测。
➢ 负责两个独立研发部门的 SAP 流程需求。包括原材料申报采购、到货领取、系统数据维护。

2019.07-2019.08   **美国科朗设备（苏州）有限公司**   **项目管理实习生**
➢ 电气安全检查项目：在十天内负责与生产部门对接确定重点安全检查处。计划日程安排和确定任务责任人，制定电气安全表并召开部门会议。排查出 7 处安全隐患进行及时整改。
➢ 化学品安全的资质统计项目：在两周内对接采购部门，获得百件化学品说明书及化学品供应商资质和运输公司资质的统计。排查出多家供应商不具备资质售卖某类化学品资质并总结反馈给采购部门。

技能及展示

➢ 英　语：IELTS: 7.0; GRE:325;
➢ 计算机：Python/C++/HTML5/CSS/Java/JavaScript/NodeJS/Altium Designer/Keil/Adobe Premier

学生活动

➢ **山东大学机电院羽毛球队**，社会实践部成员, **USC Badminton Club, Photography Club**