

Profile



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Software Intern

Educational Background

2016-2020

Computer Science and Technology
Northeastern University in China
(Bachelor)

Achievement

- CET-6 certificate
- [ICITEE paper](#)
- [GitHub](#)
- [Vehicle tracking project](#)
- [Simple compiler](#)

Contact

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Project Experience

2019.3

Information website

Developed with Spring Boot to implement registration login, information release, comment center, station letter, like and dislike, email notification and other functions. The hard part is to implement message queuing based on Redis, which asynchronizes some time-consuming operations. In the process, I learned the standard development process and deepened my understanding of technology.

After 2018.1

Large Vehicle Trajectory Tracing Method Based on Edge Calculation

As the person in charge of the project, I developed this system together with four companions. We propose a large vehicle trajectory tracing method based on edge calculation and feature recognition. Specifically, we use the SVM+HOG feature detection method to acquire a large vehicle in the video captured by the edge device, and then perform feature extraction on the image containing the target vehicle. We use a color recognition algorithm based on building a color dictionary and a vehicle classification algorithm based on migration learning to obtain two features with high recognition accuracy. Finally, the edge device in different spatial locations uploads the feature information of the captured large vehicle to the cloud server, and the cloud generates the trajectory according to the feature matching and the space-time constraint to realize the trajectory tracing of the large vehicle. We published a paper at the ICITEE conference.

2018.4-2018.6

WeChat applets "Xuntingche"

I participated in the WeChat applet contest with two partners. The WeChat applet we developed is related to parking. The main function is to provide drivers with information such as parking spaces and prices for the surrounding parking lots, navigation and the owner of the private parking space and the company rent out the parking space during their free time. My job is Node.js + MySQL backend. In addition to completing the basic functions, I also divided the tables according to latitude and longitude to try simple optimization.

Other

1. An app based on an existing set of fire detection hardware devices, the main function is to communicate with hardware devices.
2. A simple compiler for C to 8086 assembly language written by JAVA.
3. FPGA-based eight-bit model machine.
4. Personal blogs web developed with Django and "personal labs" web written with tornado.

SKILL

Backend

Familiar with JAVA, Python, and JS. Developed a standardized website with Spring Boot. Wrote the web backend with Django and tornado. Wrote the WeChat applet backend with Node.js Koa, and wrote a small app for Android development. Have the ability to develop basic features and deployments. Familiar with MySQL and Redis. I really want to have a wide range of languages and frameworks. I believe this will be good for my specialization. I am willing to learn new things.

Frontend

I've written native HTML, CSS, and JavaScript

Other

I have an understanding of image processing, written KNN and image classifier based on Inception-v3 migration learning. I have been exposed to the Raspberry Pi, 51 SCM smart car, ALINX ALTERA development learning board

Me

I love programming and want to be a qualified software engineer. I am willing to learn a wide range of new technologies to promote my expertise in one of them. Compared to theory, practice makes me a favorite way of learning, learning a new skill or getting into an existing technology will make me very happy. I also have a wealth of teamwork experience and are willing to communicate more to solve problems better. Therefore, I have basically completed enough credits in my junior year and are prepared to set aside a long time for an internship.



马莹莹

开发实习生

教育背景

2016-2020

计算机科学与技术专业

东北大学（本科）

成果

- 英语六级
- ICITEE会议论文
- 车辆追踪项目
- GitHub
- 简单编译器

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项目经历

2019.3

资讯类网站仿写

该项目是为学习进行的仿写，用Spring Boot开发实现了注册登录、资讯发布、评论中心、站内信、Redis踩赞、邮件通知等功能。较难的部分是基于Redis实现消息队列，将一些耗时较久的操作异步化。在这个过程中我学习了比较标准的开发过程，加深了对技术的理解。

2018.12

简单C语言到8086汇编语言编译器（JAVA实现）

基于递归下降法将C语言翻译为8086汇编语言，实现了由C语言→token序列→中间代码四元式→8086汇编的过程，完成了循环结构、分支结构、函数声明调用等部分。

2018.1-2018.11

基于边缘计算的大型车辆轨迹追踪系统

作为该项目的负责人，我与四位同伴共同开发了此系统。我们提出了一种基于边缘计算和特征识别的大型车辆轨迹追踪方法。具体地，我们用SVM+HOG特征检测方法获取了边缘设备拍摄的视频中的大型车辆，随后对包含目标车辆的图片进行特征提取。我们采用基于构建颜色字典的颜色识别算法和基于迁移学习的车型分类算法得到了两个识别准确度较高的特征。最后，在不同空间位置的边缘设备将拍摄到的大型车辆的特征信息上传到云端服务器，云端根据特征匹配和时空约束生成轨迹，实现大型车辆的轨迹追踪。在我们共同发表的ICITEE会议论文中，我是通讯作者及二作。

2018.4-2018.6

“迅停车”小程序开发

这个小程序是与停车有关的，主要功能是为司机提供周围停车场有无车位和价格等信息，导航，私家车位主与公司空闲时间段出租车位。作为三人小组中唯一的后端开发者，我新学了Node.js框架并按期完成开发任务。除了完成基础功能，我还按照经纬度分表，尝试了简单的优化。

其他项目

- 基于一套现有的火灾检测硬件设备的火灾预警app，主要功能是与硬件设备通信。
- 基于FPGA的八位模型机
- 用Django开发的个人博客web、医疗软件DeepInsight申请与审核系统和用tornado写的“个人实验室”web
- 基于51单片机的智能小车

专业技能

后端

JAVA、Python、JS基础良好。用Spring Boot开发过较为标准的网站。用Django和tornado写过web后端，用Node.js Koa写过小程序后端，安卓开发也写过一个小app。具备开发基本功能和部署的能力。对MySQL数据库操作较为熟练。我很想广泛接触各类语言框架，我相信这会有益于我对其中一项的专精。

前端

写过原生HTML、CSS、JavaScript。具备对前端基础的了解。

其他

对图像处理有所了解，写过KNN图像分类器和基于Inception-v3迁移学习的图像分类器。接触过树莓派、51单片机智能小车、ALINX ALTERA黑金开发学习板。一年前在老师的指导下搭建过Hadoop集群，用Unity 3D开发过小游戏。

关于我

我热爱编程，想成为一名合格的软件工程师。我愿意广泛学习各种新技术以促进自己对其中一项的专精。我具备较为丰富的团队合作经验，乐于多交流来更好地解决问题。相比理论，实践使我更喜爱的学习方式，学习一个新技能或精进一个已有的技术会使我非常快乐。因此我在大三基本修够学分，预备留出较长时间进行实习。