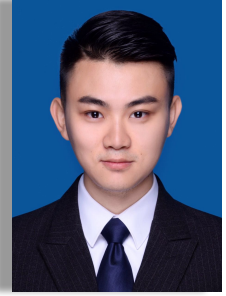


Nick Fanding WEI



Male | Birth: 02/1992 | Tel: +86 18201732014 | Graduate School: Zhejiang Univ.

Mail: nick_fandingwei@outlook.com Hobby: Travel, Tennis, Swimming

LinkedIn: <https://www.linkedin.com/in/fanding-nick-wei-630a7458/>

GitHub: <https://github.com/nick6918> Blog: <http://nickiwei.github.io/>

Education Background

08/2010 -06/2014	Automation Major B.Eng	Zhejiang Univ. College of Information Overall GPA: 3.22/4 Zhejiang Univ. ranked top 5 in China, while Automation major ranked top 2. The main topics include control theory and algorithm, Robotics and etc. During schooling, I have taken part in many projects in the lab, focusing on intelligent algorithm using multiple languages.
08/2011 -06/2014	Industrial Design Double Major B.Eng	IDI (International Design Institute), Zhejiang Univ. Average Score: 85.6/100 The Studio of Design Institute is a double major program held by IDI, it enlists 40 students each year, selecting among all undergraduate students. The goal is to cultivate the "Design led creation driven" cross-subject elite, core topics include Integrated product design, technology driven design, user interface and UX design, business design and etc.
07/2013 -12/2013	Computer Science	Singapore SUTD (Exchange Student) Research project: Development of six degree robotic arm remote control system Course: Computer Architecture, Info system design

Work Experience

08/2014 - 08/2015	Luoha Internet Corp. (Startup Company) As the major software engineer for App server, I have worked independently or with a team on multiple core project of the company, the main work included: 1, Development of server core service, like Danmu system, live system and etc. 2, As business increasing, refactored core server code, included unit test system. 3, Test and discuss on new technology.
09/2015 – 07/2017	MicroStrategy Software (NASDAQ: MSTR) As a member of Infrastructure team, which has members based on both Hangzhou and Washington working closely. My main job includes: 1, Tools implementation: IAS (Infrastructure As Code) tool, distributed sys and etc. 2, Continuous integration and Unit test framework development. 3, Worked as a part-time team scrum master for a period.

Work Skills

Programming Lang	C++, Python, Scala 1, Solid basics of C++, familiar with C++ object model, OOP, STL and generic programming. 2, Solid basics of Python, familiar with Django framework, MVC model and ORM data model. 3, Familiar with Scala, familiar with Functional Programming.
Algorithm & ML	Data Structure, Machine/Deep Learning, Computer Vision <i>(Check my blog for more details on this part: In Chinese, working on translation still)</i> 1, Solid basics on Data Structure, having strong passion on algorithm analysis and design. 2, Familiar with common SV and USV algorithms including Bayes , SVM , clustering and others. 3, Have deep understanding on Deep Learning like CNN/RNN/GAN/Q Learning and etc. 4, Familiar with image Captioning, localization and detection like Fast(er) RCNN and more. 5, Familiar with Numpy, TensorFlow , Pandas and other Python data processing tools.

Software Eng.	Distributed System, DevOps, Agile, Testing Framework 1, Familiar with Distributed sys including Mesos/Zookeeper , also algorithms like MapReduce. 2, Solid basics on DevOps, having deep understanding on CI/Jenkins , IAS, GTest Framework. 3, Familiar with LNMP server architecture, having experience on Git, Agile and Scrum.
Extended Skills	Product and Business process design 1, Familiar with prototyping using Axure , and design presentation using Keynote. 2, Familiar with basic design theory including UCD, behavior simulation, and others.

Project Experience (Self Work)

02/2017 – 10/2017	An implementation on Learning Algorithm Library(Repo: MyDeepLearning) 1, Implemented CNN/RNN/DQN and etc using pure Numpy, including BP Gradient calculation. 2, Implemented GAN, Fast(er) R-CNN and more using TensorFlow independently. 3, Implemented project like CIFAR-10 classification, Image Captioning and Localization. 4, Implemented ML algs like Bayes, SVM, clustering and more. (Repo: MyMachineLearning)
08/2017 – 10/2017	Object Localization and Detection on CIFAR-10(Repo: MyRCNN) 1, Object localization based on Faster R-CNN with accuracy about 70%(CPU only). Working on Object Detection based on MASK R-CNN.
04/2016 - 10/2016	Server design and development of LingCang APP For the very first time, I have finished the whole procedure independently including architecture design, API design and implementation, relevant service deployment and test. The project is implemented in LNMP(Linux+Nginx+MySQL+Python/Django)

Project Experience(Work)

10/2016 – 07/2017	EcoSystem: An Env management and development workflow integrated tool EcoSystem is a tool that integrated all workflow of development including Environment management, build, test, deploy and etc., it ensures the consistency of dev and test Env, which frees developers from complicated build and test procedure, and improves efficiency. My work: 1, Development of Gaia: Ecosystem resource distribution and service management system. 2, Taking part in the deployment of EcoSystem to Server team, debugging on build, test script. 3, Taking part in the replantation and optimization of Server CI based on EcoSystem
01/2016 – 10/2016	CI system development and optimization based on Jenkins The CI system has integrated workflow including build and unit test, the developer has to do nothing while the code will be automatically merged into next branch after all checks passed. 1, As the core member, I have designed and implemented the workflow of Post/Pre Merge CI, including the implementation of CI build, unittest, deploy, backup job. 2, Taking part in the deploy of GTest, implement the test code template including the feature of dynamically select UT based on code change in CI commit. 3, As the long-term who-to-ask person to help developer solving issues relevant to CI/Unittest.
09/2015 - 12/2015	Development of the dynamic resource management tool based on Mesos Users can deploy the service they need(like Jenkins, Spark and etc.) through configuration page, while Mesos taking care of resource distribution itself. 1, Taking part in the deployment and test of Mesos, read part of Mesos source code. 2, Taking part in the service template of Marathon, Jenkins and Spark on Mesos.
03/2015 - 08/2015	Core API development of Wireless Interaction system(Dammu, Live) Enable APP to interact with our terminal device fast and stable. During system design, in order to uniformly respond under different client and net environment, the system can auto-select the best solution from SocketIO (NodeJS), http 1.1 keep-alive and Http 1.0 polling. It improves system performance and stability prominently.

Language and Communication

English	Fluent	Japanese	Basic Communication
Chinese Mandarin	Native		
08/2013	GRE	Overall: 317	V: 152 Q: 165 AW: 3
12/2013	TOEFL	Overall: 102	R: 28 L: 28 W: 26 O: 20

魏凡丁 Nick



男 | 1992 年 02 月生 | 25 岁 | 手机: +8618201732014 | 毕业院校: 浙江大学

电子邮箱: nick_fandingwei@outlook.com 兴趣: 旅游, 网球, 游泳

LinkedIn: <https://www.linkedin.com/in/fanding-nick-wei-630a7458/>

Github 账号: <https://github.com/nick6918> 技术博客: <http://nickiwei.github.io/>

教育背景

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|--|---------------------|---------------------------------|
| 08/2010 -06/2014 | 自动化专业
主修学位, 工程学士 | 浙江大学信息学院
Overall GPA: 3.22/4 |
| 浙江大学控制科学与工程学系(自动化)长期排名全国前两位, 在校期间, 参与了多个实验室研究项目, 主要方向包括控制设备及智能算法研发, 并涉及多种语言及算法研究。 | | |
| 08/2011 -06/2014 | 工业设计专业
双学位, 工程学士 | 浙江大学国际设计研究院
平均分: 85.6/100 |
| 国际设计研究院设计创新班是浙江大学针对本科生的一项精英培养项目, 每学年全校招生 40 名左右。其目的在于培养“设计引导创新驱动”的交叉型精英创新人才, 核心课程包括整合与创新设计, 产品系统设计, 服务设计等。 | | |
| 07/2013 -12/2013 | 计算机科学与工程专业 | 新加坡科技设计大学 (交换生项目) |
| 科研项目: 六自由度机械臂远程控制系统设计与开发 课程: 计算机组成, 信息系统设计等 | | |

工作经历

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|--|--------------------------|
| 08/2014 - 08/2015 | 洛哈网络 (创业公司) |
| 作为 APP 服务器端主程序员, 独立完成或参与了公司多个核心项目的研发, 主要职责包括: | |
| 1, 服务器后台重难点业务(如弹幕系统, 直播系统等)的系统设计与研发, 核心 API 开发。 | |
| 2, 随着业务量的提升, 参与后台代码的重构, 并引入单元测试等。文档维护。 | |
| 3, 新技术的测试与讨论。 | |
| 09/2015 - 07/2017 | 微策略软件 (外企, NASDAQ: MSTR) |
| 供职于公司 Infrastructure Team, 团队成员 base 在华盛顿及杭州, 主要职责包括: | |
| 1, 开发工具的研发: 包括 IAS(Infrastructure As Code)环境管理工具, 内部动态资源管理工具等。 | |
| 2, 持续集成系统 与 单元测试框架的研发, 优化和维护等。 | |
| 3, 曾兼任一段时间的 team scrum master。 | |

工作技能

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|--|---------------------------------------|
| 编程语言 | C++, Python, Scala |
| 1, 扎实的 C++ 语法基础, 熟悉 C++ 对象模型, OOP 及泛型编程, 熟悉 STL。 | |
| 2, 扎实的 Python 基础, LNMP 网络编程, 熟悉 Django 框架, MVC 模型, ORM 数据模型等。 | |
| 3, 熟练掌握 Scala, 对函数式编程有较深刻的理解。 | |
| 4, 在一些项目中也使用过 Java, Ruby 等语言进行开发。 | |
| 算法与机器学习 | 数据结构, 机器学习, 深度学习, 机器视觉 (此部分详见博客) |
| 1, 扎实的数据结构与算法基础, 对各类算法问题有浓厚的兴趣。较扎实的代数与概率基础。 | |
| 2, 熟悉各监督(回归, SVM, 贝叶斯等)及非监督(Clustering 等)学习算法, 能独立实现以上算法。 | |
| 3, 扎实的深度学习基础, 对 CNN/RNN/GAN/DQN 等有较深刻理解, 能独立实现以上算法。 | |
| 4, 对 Image Classification, Captioning, Localization, Detection(RCNN)等主流视觉算法有较深刻理解, 能独立实现以上算法。了解基于 Mask R-CNN 的 Object Segmentation 原理。 | |
| 5, 熟练使用 Numpy, Tensorflow, Pandas 等常用的 Python 数据编程工具。 | |
| 软件工程 | 分布式系统, DevOps, Agile, 测试框架, LNMP 网络编程 |
| 1, 对分布式编程有一定的了解, 熟悉 Mesos/ ZooKeeper 等框架及 MapReduce 算法。 | |
| 2, 扎实的 DevOps 基础, 熟悉 CI/Jenkins, Infrastructure As Code, GTest 测试框架等技术。 | |
| 3, 对 Git 有较深入的研究, 熟悉 LNMP 服务器编程及架构。熟悉 Agile, 曾兼任 scrum master。 | |

T 型人才

产品与商业设计，设计表达

熟练使用 **Axure** 进行产品原型设计，擅长使用 KeyNote 完成设计表达及 presentation.

熟练掌握 UCD(用户中心设计)，行为相似，所见即所得等基础设计原理，对产品有良好的感觉。
良好的英语听说能力，曾参与美国深夜脱口秀《上周今夜秀》的字幕听译工作。

项目经历（自主）

- 02/2017 – 10/2017 深度学习算法库的实现 (Github 仓库: MyDeepLearning)
使用 Numpy 实现了包括 CNN, RNN, DQN 在内的多个算法，包括反向 pass 梯度计算的实现。
使用 TensorFlow 实现了包括各类 GAN, Fast(er)-R CNN 在内的多个算法。
利用上述模型独立实现了 CIFAR-10 Classification, Image Captioning, Style Transfer 等项目。
独立实现了多个机器学习算法，包括朴素贝叶斯, SVM 等(仓库: MyMachineLearning)
- 08/2017 – 10/2017 Object Localization and Detection on CIFAR-10 (Github 仓库: MyRCNN)
独立实现了基于 Faster R-CNN(TF)的 Object localization, 并将识别率做到 70%上下(CPU)。
- 04/2016 - 10/2016 独立完成邻仓 APP 后台服务器的部署及接口开发与测试
独立完成服务器后台架构设计, 接口实现, 服务部署及测试。项目基于 LNMP 实现。

项目经历（工作）

- 11/2016 – 06/2017 EcoSystem: 环境管理与研发流程一体化工具的开发, 测试与管理
EcoSystem 集成了环境管理, 编译及测试等多个研发流程, 保证了测试与开发环境的一致性。
将开发人员从复杂的编译和测试流程中解脱出来, 提高开发效率。 主要负责：
1, 参与 Gaia 系统, 即 EcoSystem 资源分配与服务管理系统部分功能的开发及测试
2, 参与 Server Team Ecosystem 开发环境的部署(Linux/Windows), build, test 脚本调试。
3, 参与 Server CI 基于 EcoSystem 的重构和优化。
- 01/2016 – 10/2016 以 Jenkins 为核心的 Server 持续集成系统的研发, 优化和维护
集成了代码更新, 编译, 单元测试等功能, 研发在提交 PR 后不需进行任何操作, 代码完成测试后会自动更新至最新分支中。 主要负责:
1, 作为核心成员负责了 Post merge 和 pre merge 架构设计, 测试及 build, test 等 job 实现
2, 参与 googletest 的测试, 升级及 CI 部署, 配合 CI 实现了 test 的动态读取与增量选择
3, 长期作为该项目的 who-to-ask person 独立负责帮助 developer 解决 CI/unittest 相关问题。
- 09/2015 - 12/2015 以 Mesos 为核心的分布式内部动态资源管理工具的研发
用户可以通过管理界面配置自己需要的服务(如 Jenkins, Spark, Hadoop 等), 由 Mesos 动态为服务的每次执行分配各种资源。主要负责：
1, 参与 Mesos 的部署及测试, 交互界面的实现, 阅读了部分 Mesos 源码。
2, 参与 Mesos 上 Marathon, Jenkins, Spark 等服务模版的实现及测试。
- 03/2015 - 08/2015 无线点歌及弹幕系统核心 API 的开发与测试
在架构设计时, 为便于不同客户端在不同网络环境下统一调度, 通过封装将底层的长链接机制进行隐藏, 系统根据请求客户端的类型自动从 SocketIO(NodeJS 实现), HTTP 1.1 Keep-alive 机制和 HTTP 1.0 轮询中选择最优方案保持连接。显著提高了连接稳定性。

项目经历（设计）

- 02/2014 - 07/2014 家庭仿生看护狗的产品设计与 Arduino 实现
毕业设计 导师: prof. Liu Gang(ZJU)
海康威视合作项目。通过广泛用户调研及数据采样, 完成家用仿生看护狗的产品功能及视觉设计, 在 Arduino 基础上, 结合摄像头及多个传感器组件, 完成声控原型产品的实现。
- 09/2013 - 12/2013 TU/e-ZJU 老年人产品设计 Workshop
浙大-埃因霍温科技大学学生合作项目 导师: prof. Lu Yuan(TU/e)
成员来自中国和荷兰。通过获取大量老年人行程数据, 配合采访等方式, 发现用户痛点, 最终完成了一款针对老年人的以简洁和大触点色块为核心的手表设计, 含追踪, 快速报警, 留言等功能。
产品设计最终获得浙大自动化系实验室认可, 由该实验室结合其技术进行原型测试及研发。

语言与沟通

英语	流利听说	日语	基础会话
08/2013	GRE	Overall: 317	V: 152 Q: 165 AW: 3
12/2013	TOEFL	Overall: 102	R: 28 L: 28 W: 26 O: 20