周金良

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学历

2003.09–2006.03	**硕士**, 上海交通大学机械电子专业, 上海交通大学校优秀毕业生.
1999.09–2003.07	**学士**, 上海交通大学机械电子专业.

工作经历

上海梦擎信息科技有限公司（2006.03–现在）

2011.03–现在   **ALP V2**, 技术经理, 项目负责人.

ALP V2 是 ALP 的全新升级系统，类似谷歌地图，基于移动互联网的 LBS 地图应用平台。并提供 WEB 及移动平台的 SDK，允许第三方接入。已上线的业务功能含有地图瓦片服务系统、地图瓦片实时渲染系统，POI 查询系统、路径演算系统、路况信息系统及鉴权认证系统。非业务系统包含使用 LVS、Nginx、Varnish 的接入层系统，运维相关的日志及监控系统，以及其他队列、缓存、MySql、nosql 系统。

- 负责 ALP V2 系统的需求分析、架构设计。
- 负责研发基于 Cetty 的全堆栈 C++ 基础网络应用框架（类似 Finagle），支持基于 protobuf RPC、REST HTTP 等协议。
- 负责研发基于 gearman 的任务系统，并基于此研发分布式地图瓦片实时渲染系统。
- 负责研发基于 Sphinx 的面向地理信息的 POI 查询系统（包含基于 CSWS 的地理类中文切词系统）。
- 负责研发类似 shiro（参考）的 C++ 鉴权认证系统。

2008.10–2011.03   **ALP(Astrob LBS Platform)**, 技术经理, 项目负责人.

ALP 是以车载 GPS 导航为中心的 LBS 应用平台，类似 TSP(Telematics Service Provider)，提供实时交通信息、网络 POI、车友会、一键通等应用的后端平台系统，并可以与第三方的 CTI、SP 做无缝集成。

- 负责 ALP 系统的需求分析、架构设计。
- 带领团队研发基于 ACE 的支持高并发的 Socket 网络框架。
- 负责研发跨平台（WinCE、Windows、Linux）的类 OSGI 的 C++ 插件框架。
- 负责研发基于 ODBC 的 C++ 持久层框架，基于 Protobuf 的 RPC 框架。
- 负责研发基于 Sphinx 的全文检索系统，日志系统。
- 使用 MySql、Redis、MongoDB、Sphinx、Protobuf、ACE 等开源软件。

2008.10–2011.03 **CPND(Connected PND) GPS 导航软件**, 技术经理, 项目负责人.

CPND 导航软件是具有无线应用的 GPS 车载导航软件。项目针对新需求，进行了架构设计，模块重构的工作。
- 负责 ALP 系统中 CPND 导航终端产品的需求分析及架构设计。
- 负责基础 C++ 核心组件（跨平台基础库、日志库、配置库、信号插槽等）的构建。
- 负责项目团队的建设和管理。
- 采用类 OSGI 插件框架作为核心框架，实现优秀的扩展性；使用 gtest 单元测试。
- 采用 RUP/SCRUM 开发模型；使用 Redmine 管理项目；使用 Hudson 持续集成。

2007.06–2008.10 **Panasonic 前装车载 GPS 导航**, 高级软件工程师, 项目负责人.

为松下开发的全新前装 GPS 导航软件，针对台湾及中国大陆市场。
- 负责与客户研讨需求，主导系统设计以及模块的开发。
- 管理项目日常开发事务，控制软件质量及项目进度。

2007.03–2007.06 **GPS 导航北美 GSL 客户定制**, 高级软件工程师, 项目负责人.

基于通用 GPS 导航软件版本，针对 GSL 客户的需求，做特别订制的北美版导航软件。
- 负责与 GSL 客户讨论并制订需求，并针对客户需求对导航软件进行定制化开发，负责软件的集成测试及最终发布。

2006.10–2007.03 **GPS 导航桌面工具 MapManager**, 软件工程师, 项目负责人.

MapManager 是管理设备导航软件的桌面工具，包含安装更新地图，导入导出个人资料。
- 负责 MapManager 的需求分析、设计及开发工作。

2006.06–2007.01 **公司软件开发规范制订**, 软件工程师.
- 负责制订公司内部的软件开发流程、规范，并在实施过程中不断改进（在咨询公司协助下）。
- 制定的软件开发流程、规范在公司内部实施，并取得较好的效果。

2006.03–2006.07 **GPS 导航软件中的语音导航模块**, 软件工程师.
- 负责实现 Wave 及 Ogg 播放器，导航语音控制模块。支持 WinCE、Linux 平台。

开源经历

2010.12–现在 **Cetty**, *github.com/frankee/Cetty*, 项目创建人.

Cetty 是一个高效、易扩展、易开发、跨平台的 C++ 网络应用开发框架。其源于 Netty，当前实现版本基于 BOOST ASIO。构建系统采用 CMake。

科研经历

上海交通大学机器人研究所（2003.03–2006.02）

2005.08–2006.02 **机器人烟草流水线拆箱系统**, 项目负责人.

与 ABB 公司合作研发，可以有效、快速地自动拆除流水上烟草包装箱的机器人系统。
- 负责系统的架构设计，负责计算机视觉及控制算法的研究。
- 该机器人烟草拆箱系统成功应用于上海烟草公司。

2003.03–2006.02 **足球机器人**, 重要研究成员.

用来参加 RoboCup(Robot World Cup) 中型自主足球机器人赛的机器人足球队。
- 参与机器人构架分析与设计；独立完成基于 RTLinux 的实时智能运动控制模块研发。
- 2005 中国 RoboCup 足球机器人比赛中获冠军；运动控制算法发表于上海交大学报。

2004.09–2005.04 **OMRON 表演机器人**, 项目负责人.

与 OMRON 公司合作开发的表演机器人，可以和观众在舞台上进行互动表演。
- 负责整个项目的研发过程。主导机器人控制软件、PC 监控软件的研发。
- 在 2004 上海工博会上成功展出，并受众多新闻媒体的采访。

2003.03–2004.12 **智能瓜果分级机器人**, 重要研究成员.

与上海农委合作开发，能自动将农场采集的瓜果分成各种等级的机器人。
- 负责研究核心机器人视觉识别算法、流水线控制模块的研发。
- 智能瓜果分级机器人通过上海农委的验收，相关科研成果发表于机器人杂志。

语言

英语　CET-6，口语流利，良好的阅读及写作能力

IT 技能

语言　精通 C++, 熟悉 Java, JavaScript

工具　Linux, boost, poco, gtest, Protobuf, ACE, MySql, Redis, MongoDB, Memcached, Sphinx, svn, git, Redmine

其他　UML, OSGI, OOD, SOA, 设计模式, RUP/SCRUM 开发模型

其他

对任何事情认真负责，责任心强；具有很好的人际沟通、协调和组织能力。

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Enducation

2003.09–2006.03	**Master**, *ME of JiaoTong University*, Shanghai, *(an honor of Excellent Graduate).*
1999.09–2003.07	**Bachelor**, *ME of JiaoTong University*, Shanghai.

Work Experience

Shanghai Astrob Information Technology Co., Ltd. (2006.03–now)

2011.03–now   **ALP V2**, Technical Manager, Team Leader.

ALP V2 is a web map system, like google maps, provide SDK of javascript and smart mobile phone, including iphone and Android, and also can connected with REST HTTP api. Subsystem includes Map Tile System, Real-time Tile Rendering system, Poi search/Geocode System, Route System, Traffic System, Auth System, the access layer system using LVS, Nginx, Varnish, MysSql, Redis, MongoDb, logging and monitoring system.

- Responsible for the ALP V2 system requirements analysis, architecture design.
- Responsible for developing of the full stack C++ network application framework (similar to Finagle), based on the Cetty, supporting protocals including the protobuf-RPC, REST HTTP.
- Responsible for developing gearman-based task system, and the distributed real-time map tile rendering system based on this.
- Responsible for developing POI query system, oriented geographic information, based on the Sphinx (including geographical Chinese characters segmentation system based on the the CSWS).
- Responsible for developing C++ Authentication & authentication system, similar to shiro.

2008.10–2011.03 **ALP(Astrob LBS Platform)**, Technical Manager, Team Leader.

ALP is a LBS application platform, focus in GPS navigation, similar to the TSP (Telematics Service Provider), providing real-time traffic information, rich POI, Car Mate Club, call center destination setting, seamless integration to third parties' CTI and SP.
- Responsible for the ALP system requirements analysis, architecture design.
- Lead the team to develop high concurrency socket network framework, based on ACE.
- Responsible for developing cross-platform (WinCE, Windows, Linux) OSGI like C++ plug-in framework.
- Responsible for developing C++ persistence layer framework based on ODBC, and RPC framework based on Google Protobuf.
- Responsible for POI search system based on the Sphinx, and logging system.
- Using MySql, Redis, MongoDB, Sphinx, Protobuf, the ACE and other open source software.
- The ALP Solution (including CPND navigation) has been successfully operated in CarSmart project since 2010.

2008.10–2011.03 **CPND(Connected PND) GPS Navigation**, Technical Manager, Team Leader.

CPND navigation software, intergated the function provided by the ALP.
- Responsible for the requirements analysis and architecture design of the CPND navigation.
- Responsible for the core C++ library (cross-platform foundation library, logging system, configuration library, the signal slot, etc.).
- Responsible for the team building.
- Responsible for developing OSGI plug-in framework, for good scalability, using unit test with gtest.
- Development under SCRUM, project management using Redmine, continuous integration using Hudson.

2007.06–2008.10 **Panasonic pre-installed GPS navigation**, Senior Software Engineer, Team Leader.

A new pre-installed GPS navigation software for Taiwan and mainland China market, OEM for Panasonic.
- Discuss the requirement with the customer, design the software architecture.
- Manage the daily project development, lead the teammates to design the framework and develop the module, and control the software quality and the project process.
- The GPS navigation for Panasonic has launched on the markets of China MainLand and Taiwan.

2007.03–2007.06 **GPS navigation customized for GSL**, Senior Software Engineer, Team Leader.
- Discuss and confirm the requirement of GPS navigation with the client of GSL, make customization development according to the client's requirement, take charge integration test and the final release.
- The GPS navigation for GSL has launched on US market.

2006.10–2007.03 **MapManager**, Software Engineer.

A desktop tool for installing and updating the GPS navigation and map data, supporting multi-language.
- Responsible for MapManager requirement analysis, design and development.

2006.06–2007.01 **Setting up and improve the process and procedure of the software development**, Software Engineer.
- Responsible for the development of internal software development process (in the assistance of consulting company).
- The software development process and configuration management applied in company successfully.

2006.03–2006.07 **The voice guidance module of the GPS navigation system**, Software Engineer.
- The wave & ogg player, in Windows CE & Linux.

Open Source Experience

2010.12–now **Cetty**, *https://github.com/frankee/Cetty*, Project Founder.

The Cetty project is a network application framework for easy developing high performance and high scalability servers and clients. It comes from Netty project, and based on boost asio, using proactor network pattern.

Research Experience

Robot Research Institute of JiaoTong University (2003.03–2006.02)

2005.08–2006.02 **The tobacco leaf packages unpacking robot system**, Project Leader.

The robot, cooperated with ABB, can unpack effectively the tobacco packages.
- Responsible for the architecture design, and the research of computer vision and control algorithms.
- The robot system applied to Shanghai Tobacco Company successfully.

2003.03–2006.02 **The autonomous mobile robot**, Team Member.

Participated in the medium-sized autonomous robot soccer of the RoboCup (the Robot World Cup).
- Involved in the robot architecture design, developed the real-time intelligent motion control system based on RTLinux.
- The competition winner of the 2005 China RoboCup, motion control algorithm published in the Journal of Shanghai JiaoTong University.

2004.09–2005.04 **The OMRON entertainment robot**, Project Leader.

The robot, cooperated with OMRON, can interact with the audience on stage performances.

- Responsible for the project development process. Leading robot control software development.
- Took part in Shanghai International Industry Fair 2004, and interviewed by many news media.

2003.03–2004.12 **The intelligent fruit auto-sorting robot**, Team Member.

Cooperated with the Shanghai Agricultural Committee.

- Responsible for the computer vision recognition algorithms development.
- The rebot got through the Shanghai agricultural committee's approval, and the related research at the magazine of the Robot.

Languages

English **CET-6, Fluent in English**

Computer skills

Language Expert knowledge in C++, familiar with Java, Javascript

Tools Linux, boost, poco, gtest, Protobuf, ACE, MySql, Redis, MongoDB, Memcached, Sphinx, svn, git, Redmine

Others UML, OSGI, OOD, SOA, Design Pattern, RUP/SCRUM

Extra

- Open-minded, creativity, responsible, teamwork spirit, good interpersonal skills and leadership.