

附件 2

Annex 2

# 广州市紧缺人才需求目录

## Catalogue of Critically-lacking Talents in Guangzhou

(2019 年版)

(2019 Version)

### 新一代信息技术

CTO (首席技术官)、产品经理/主管、项目经理/主管、  
软件工程师、硬件工程师、大数据分析工程师、UI 设计师、  
WEB 前端开发工程师、多媒体/游戏开发工程师、算法工程师、  
系统架构师、移动开发工程师、运维工程师、信息安全工程  
师、通信专业技术人员、计算机辅助设计 (CAD) 研发工程  
师、计算机辅助工程 (CAE) 研发工程师

### Next Generation Information Technology

CTO (Chief Technical Officer), Product Manager/Supervisor,  
Project Manager/Supervisor, Software Engineer, Hardware  
Engineer, Big Data Analysis Engineer, UI Designer, WEB  
Front-end Development Engineer, Multimedia/Game  
Development Engineer, Algorithm Engineer, Systems Architect,  
Mobile Development Engineer, Operations and Maintenance

Engineer, Information Security Engineer, Communications Technician, Computer Aided Design (CAD) R&D Engineer, Computer Aided Engineering (CAE) R&D Engineer

## 人工智能

技术总监、AI 工程师、软件工程师、硬件工程师 (ARM)、数据工程师/分析师、大数据开发工程师、后台开发工程师、平台开发工程师、数据库开发工程师、算法工程师、系统架构工程师、移动开发工程师、机器视觉工程师 (软/硬件)、自动化系统集成开发工程师

## Artificial Intelligence

Technical Director, AI Engineer, Software Engineer, Hardware Engineer (ARM), Data Engineer/Analyst, Big Data Developer, Backend Developer, Platform Development Engineer, Database Development Engineer, Algorithm Engineer, Systems Architect, Mobile Development Engineer, Machine Vision Engineer (Software/Hardware) and Automation Systems Integrator

## 生物医药

药物研发项目负责人、药品研发人员、药物质量研究员、药物合成技术人员、动物实验研究人员、药理分析人员、病理诊断人员、临床研究带头人、临床检验人员、临床 CRO 管

理员、药品检测人员、药品生产工艺管理人员、现场 QA、生物样本分析人员、生物信息研发工程师、纯化工程师、生物制药工程师、疫苗和单抗类生物制品工艺开发带头人、单抗和疫苗类生物制品质量研究与注册带头人、兽医、医药设备自动化工程师、医疗器械高级技术顾问、医药物流管理、医药零售管理、执业药师

### Biomedicine

Pharmaceutical R&D Project Leader, Pharmaceutical R&D Researcher, Pharmaceutical Quality Researcher, Pharmaceutical Synthetic Technician, Animal Laboratory Researcher, Pharmacological Analyst, Pathological Diagnostician, Clinical Research Leader, Clinical Laboratory Personnel, Clinical CRO Administrator, Pharmaceutical Test Specialist, Pharmaceutical Production Process Manager, Field QA, Biological Sample Analyst, Biological Information R&D Engineer, Purification Engineer, Biopharmaceutical Engineer, R&D Leader in Vaccine and Monoclonal Antibody Biological Product Process, Leader in Quality Research and Registration of Monoclonal Antibody and Vaccine Biological Products, Veterinarian, Medical Equipment Automation Engineer, Senior Technical Consultant in Medical Devices, Pharmaceutical Logistic Manager, Pharmaceutical Retail Manager, Licensed Pharmacist

## 新能源新材料

光伏系统工程师、热能动力工程师、环保工程师、废水处理工程师、废气处理工程师、固体废物研发工程师、新材料研发工程师、半导体项目技术总监、高分子材料工程师、工艺研究工程师、化学工程师、3D 打印设计师、EHS（环境安全）工程师、改性塑料工程师、生产技术总监、实验室分析员

## New Energy and Materials

Photovoltaic Systems Engineer, Thermal Power Engineer, Environmental Protection Engineer, Wastewater Treatment Engineer, Waste Gas Treatment Engineer, Solid Waste R&D Engineer, New Materials Research Engineer, Technical Director of Semiconductor Project, Polymer Materials Engineer, Process Research Engineer, Chemical Engineer, 3D Printing Designer, EHS (Environment, Health and Safety) Engineer, Modified Plastics Engineer, Production Technology Director, Laboratory Analyst

## 电子信息

电子工程师、芯片设计工程师、芯片设计架构师、弱电智能化设计师、表面处理工程师、SMT（贴片技术）工程师、PCB Layout（印刷线路板布局）工程师、真空镀膜工程师、信息化咨询顾问、IE（工业）工程师、PE（工艺）工程师、

NPI (新产品导入) 工程师、RF (射频) 工程师

### Electronic Information

Electronic Engineer, Chip Design Engineer, Chip Design Architect, Milliampere Intelligent Designer, Surface Treatment Engineer, SMT (Surface Mount Technology) Engineer, PCB Layout (Printed Circuit Board Layout) Engineer, Vacuum Coating Engineer, IT Consultant, IE (Industry) Engineer, PE (Process) Engineer, NPI (New Product Import) Engineer, RF (Radio Frequency) Engineer

### 装备制造与机器人

模拟仿真工程师、机械设计工程师、模具设计工程师、机器人研发工程师、算法工程师、激光应用工程师、工业和技术软件开发工程师、CNC (数控机床) 技术员、BIM (建筑信息模型) 工程师、电气工程师、燃气工程师、液压工程师、装配/维修电工、马达工程师、PMC (生产物料控制) 工程师、工业机器人系统操作员、工业机器人系统运维员、冶金工程师、特种设备检验检测人员、模具维修技师

### Equipment Manufacturing and Robots

Analog Simulation Engineer, Mechanical Design Engineer, Mold Design Engineer, Robot Development Engineer, Algorithm Engineer, Laser Application Engineer, Industrial and Technical Software Development Engineer, CNC (Computer Numerical

Control) Technician, BIM (Building Information Model) Engineer, Electrical Engineer, Gas Engineer, Hydraulic Engineer, Assembly/Maintenance Electrician, Motor Engineer, PMC (Production Materials Control) Engineer, Industrial Robot System Operator, Industrial Robot System Operations and Maintenance Technician, Metallurgical Engineer, Special Equipment Inspector, Mold Maintenance Technician

### 电子商务（现代物流）

新媒体运营经理、用户研究员、互联网产品经理、区域快销经理、数据分析师（互联网）、电商运营经理、小语种销售、SEO（搜索引擎优化）工程师、美工设计师、UI（用户界面）交互设计师、国际物流经理/业务员

### E-Commerce (Modern Logistics)

New Media Operation Manager, User Researcher, Internet Product Manager, Regional Fast Sales Manager, Data Analyst (Internet), E-Commerce Operation Manager, Salesperson in Less Spoken Foreign Languages, SEO (Search Engine Optimization) Engineer, Graphic Designer, UI (User Interface) Interaction Designer, International Logistics Manager/Salesman

### 金融

特许注册金融分析师（CFA）、金融理财师（AFP）、注册会计师（CPA）、金融风险管理师（FRM）、国际注册会

计师 (ACCA)、全球特许管理会计师 (CGMA)、注册国际投资分析师 (CIIA)、金融工程师、离岸金融高端人才、私人银行高端人才、风险管理高端人才、授信审批高端人才、支付结算高端人才、绿色金融高端人才、跨境金融高端人才、财务会计人才、高级资金业务人才、金融市场营销人才、金融高级管理人才、投资银行业务人才、投资交易人才、金融产品研发设计人才、财富管理人才、资金业务人才、支付结算体系人才、金融法律/审计人才、合规风控人才、金融科技人才、保险精算人才、风险管理人才、行业研究人才、核理赔人才、保险调查专业人才、再保险业务人才、年金专业人才、供应链金融人才、保险资产管理人才、跨境国际贸易融资人才、金融数据分析师、金融不良资产投资管理人才、基金经理、融资租赁经理

## Finance

Chartered Financial Analyst (CFA), member of Association of Financial Professionals (AFP), Certified Public Accountant (CPA), Financial Risk Manager (FRM), member of Association of Chartered Certified Accountants (ACCA), Chartered Global Management Accountant (CGMA), Certified International Investment Analyst (CIIA), Financial Engineer, high-end talents in offshore finance, private banking, risk management, credit granting examination and approval, payment and settlement,

green finance and cross-border finance, financial accounting talents, senior capital business talents, financial marketing talents, high-end financial management talents, talents in investment banking business, investment transaction, financial products research, development and design, wealth management, capital business, payment and settlement system, financial law/audit, compliance and risk control, fintech, actuarial, risk management, industry research, insurance settlement, insurance investigation, reinsurance, annuity, supply chain finance, insurance asset management and cross-border international trade financing, financial data analyst, non-performing assets investment manager, fund manager and financial leasing manager

## 汽车

设计研发总监、动力总成开发设计师、动力系统集成与控制工程师、高效新型内燃机工程师、燃料电池发动机及其辅助系统工程师、电机与驱动器工程师、动力蓄电池及管理系统工程师、高效变速传动系统工程师、新能源汽车研发工程师、AR（增强现实）开发工程师、物联网嵌入式应用程序开发工程师、智能网联汽车信息安全技术研究工程师、算法工程师（导航定位、感知、决策、运动控制）、ADAS 开发工程师、自动驾驶平台架构师、3D 打印工程师、系统测试工



程师、材料测试工程师、汽车强化工程师、测绘工程师、汽车配件技术专家、汽车产品检测调试人员、机动车检测维修专业技术人员、汽车媒体人才、汽车金融保险人才

### Automobile

Research, Development and Design Director, Power Assembly Development Designer, Power System Integration and Control Engineer, High Efficiency and New-Type Internal Combustion Engine Engineer, Fuel Cell Engine and Auxiliary System Engineer, Motor and Driver Engineer, Power Battery and Management System Engineer, High Efficiency Variable Speed Transmission System Engineer, New Energy Vehicle R&D Engineer, AR (Augmented Reality) Development Engineer, Internet of Things Embedded Application Development Engineer, Information Security Technology Research Engineer of Intelligent and Connected Vehicles, Algorithm Engineer (navigation and positioning, perception, decision-making and motion control), ADAS Development Engineer, Autonomous Driving Platform Architect, 3D Printing Engineer, Systems Testing Engineer, Materials Testing Engineer, Automotive Enhancement Engineer, Surveying and Mapping Engineer, Automotive Parts Specialist, Automotive Products Test and Validation Technician, Automotive Detection and Maintenance

Technician, automotive media professional, automotive finance and insurance professional

### 航空航运

港口土建项目管理员、涉外港口业务员、涉外法务专员、港口现场指导员/调度/中控员/计划员、外事代表、注册验船师、船员资格（含船员、渔业船员）、航空人员（飞机驾驶员、民航乘务员、领航员、飞行机械员、飞行通信员、民用航空电信人员、飞机维修员、飞行签派员、航空安全员、航行情报人员、气象人员）

### Aviation and Shipping

Port Civil Work Superintendent, Foreign-related Port Business Manager, Foreign-related Legal Specialist, Port Site Instructor/Dispatcher/Central Controller/Planner, Foreign Affairs Representative, Registered Ship Surveyor, Certified Crew (including Crew and Fishery Crew), Aviation Professional (Aircraft Pilot, Steward/Stewardess, Navigator, Aircraft Mechanic, Aircraft Communications Operator, Civil Aviation Telecommunications Operator, Aircraft Maintenance Mechanic, Flight Dispatcher, Aviation Security Officer, Navigation Intelligence Professional, Meteorological Professional)

### 文化创意

文物保护专家、文物修复专家、杂技表演人才、戏剧表

演人才、编剧、文学创作人才、舞美设计人才、文博艺术策展人才、动漫设计创作人才

### Culture and Creativity

Cultural relics preservation specialist, cultural relics restorer, acrobatic performer, theatrical performer, scriptwriter, creative writer, stage designer, museum and art curator, animation designer

### 工程建设

规划师（城乡、交通、市政）、设计师（建筑、城市规划与景观、结构、电气、给排水、视觉等专业）、工程师（市政、机电、测量、钢结构、造价、建筑施工、材料、风景园林施工、风景园林、道路与桥梁、给水排水、自动控制、环保等专业）、项目负责人（市政公用工程、建筑工程、水利水电工程、机电工程等专业）、场地土壤环境调查专家、民用核安全设备无损检验人员、民用核设施操纵人员、注册建筑师、监理工程师、环评工程师、测绘工程师、资产评估师、建造师、注册结构工程师、注册石油天然气工程师、注册采矿/矿物工程师、注册安全工程师、工程咨询（投资）专业技术人员、土地登记代理专业人员、技防技能技术人员、特种/高压作业电工

### Engineering Construction

Planner (urban and rural, transportation, municipal), Designer (architecture, urban planning and landscape, structure, electrical, plumbing and drainage, visual, etc.), Engineer (utility, M&E, survey, steel structure, cost, construction, material, landscape architectural construction, landscape architecture, roads and bridges, plumbing and drainage, automation control, environmental protection, etc.), Project Leader (municipal utility, construction, water conservancy and hydropower, M&E etc.), Site Soil Environment Surveyor, Civil Nuclear Safety Equipment Nondestructive Inspector, Civil Nuclear Facility Operator, Registered Architect, Supervision Engineer, Environmental Assessment Engineer, Surveying and Mapping Engineer, Asset Appraiser, Builder, Registered Structural Engineer, Registered Petroleum and Gas Engineer, Registered Mining/Mineral Engineer, Registered Safety Engineer, Engineering Consulting (Investment) Professional, Professional in Land Registration Agency, Safety Engineer, Special/High Voltage Operating Electrician

## 教育

高校教研人员（生命科学、物理与电子工程、计算机科学与网络工程、医学、护理、外语外贸、财经、管理、机电、IT、珠宝、艺术、人文等专业）、基础教育高层次人才、职

业教育高层次人才

### Education

Teacher and researcher of tertiary education (life science, physics and electronic engineering, computer science and network engineering, medicine, nursing, foreign languages, foreign trade, finance and economics, management, electromechanical, IT, jewelry, art, humanities and other disciplines), high-level talents in basic and vocational education

### 医疗卫生

儿科医生（学科带头人）、妇产科医生、精神科医生、儿童早期发展医生、儿童早期发展评估治疗师、超声诊断学科带头人、心血管学科带头人、老年医学学科带头人、儿科转化医学研究人才、妇产科转化医学研究人才、烧伤整形科医生、养老护理人员

### Medical and Health Service

Pediatrician (academic leader), gynecologist and obstetrician, psychiatrist, early childhood development doctor, early childhood development assessment therapist, academic leader in ultrasound diagnostics, academic leader in cardiovascular medicine, academic leader in geriatrics, pediatric

translational medicine researcher, gynecological and obstetric  
translational medicine researcher, burns plastic surgeons and  
geriatric care professionals

### 专业服务

法律职业资格、中国委托公证人资格（香港、澳门）、  
注册会计师、拍卖师、注册计量师、税务师、翻译

### Professional Services

Holder of Legal Professional Qualification Certificate,  
China-Appointed Attesting Officer (Hong Kong and Macao),  
Certified Accountant, Auctioneer, Certified Metrologist, Tax  
Specialist, Translator and Interpreter

### 经营管理

企业高级经营管理人员（董事长、副董事长、总经理、  
副总经理、监事长、总经济师、总会计师等），企业战略规划  
类、资本运作类、财务金融类、人力资源管理类、市场营销  
类、产品运营类、产品研发类、生产管理类、复合技能类人  
才

### Management

Senior Executive (Chairman, Vice-chairman, General  
Manager, Chief Supervisor, Chief Economist, Chief Accountant,  
etc.), talents specialized in strategic planning, capital operation,  
finance, human resources management, marketing, product

operation, product research and development and production management and those with versatile skills