Peng Wang

753-881-8089 | wang1059@algonquinlive.com

[LinkedIn Profile](#) | [GitHub Profile](#)

PROFILE

Full-Stack AI Developer with 10+ years in data engineering and software development, proficient in React/Vue, Python/Java, big data, and cloud operations. Currently pursuing AI graduate studies with hands-on experience in machine learning and knowledge representation. **Philosophy: simplicity over complexity** — architect robust systems that maximize impact through clarity and elegance.

SUMMARY OF QUALIFICATIONS

Technical Skills

- **Backend & AI**: Proficient in Python, Java, Spring Boot; engineered FastAPI backend with 88.8% test coverage; integrated AI services (Groq, Google Gemini, scikit-learn) achieving 85%+ accuracy

- **Cloud & Microservices**: Extensive experience with Docker, Kubernetes, AWS; engineered RESTful APIs and microservices with OAuth 2.0; deployed production systems with CI/CD pipelines

- **Big Data & Infrastructure**: Operated Hadoop ecosystems, Spark pipelines processing 50+ TB monthly with 38 data sources, ensuring 99.9% uptime

- **Agile & Leadership**: Led Scrum implementations across cross-functional teams; coordinated 21+ concurrent projects; mentored teams from 5 to 20+ members

EDUCATION

Ontario College Graduate Certificate   2025 – 2026
Algonquin College, Ottawa, ON
Artificial Intelligence Software Development

Bachelor of Engineering in Communication Engineering   2008 – 2012
Hubei University of Technology, Wuhan, China

ACADEMIC PROJECTS

Ottawa GenAI Research Assistant   Sep 2025 - Present
Collaborative Government Project | [GitHub Repository](#)

- Led enterprise-grade AI research assistant with bilingual support (EN/FR) for Ottawa Economic Development

- Engineered FastAPI backend with 88.8% test coverage, integrating Groq AI and Google Gemini

- Deployed microservices on Render with CI/CD and OAuth 2.0 authentication

Multi-Course Learning & Exam System   Sep 2025 - Present
Independent Development Project | [Live Demo](#) | [GitHub Repository](#)

- Built comprehensive learning platform using React, Vite, and Tailwind CSS with learning, practice, lab, and exam modules
- Integrated AI-powered content generation using Google Gemini API to auto-generate materials from PDFs
- Launched admin dashboard with role-based access control on GitHub Pages

Python Data Basics Learning Platform   Sep 2025 - Present

Educational Project | [Live Demo](#) | [GitHub Repository](#)

- Built Python data processing platform with NumPy, Pandas, and Matplotlib
- Created interactive learning modules with MDX, Monaco Editor for real-time code execution
- Designed comparison-based learning approach demonstrating data analysis workflow

WORK EXPERIENCE

Data Architect   Apr 2015 - Oct 2023

Guangzhou Huanwang Technology Co., Ltd., Guangzhou, China

- Architected big data platform processing 50+ TB monthly with 38 data sources, ensuring 99.9% uptime using Spark, CDH, and DolphinScheduler
- Coordinated cross-functional agile teams using Scrum to deliver 21+ concurrent projects on time and within budget
- Cultivated technical teams from 5 to 20+ members, providing mentorship and conducting code reviews

Java Developer   Oct 2012 - Mar 2015

Beijing Haitian Network Marketing Planning Co., Ltd., Beijing, China

- Delivered core modules for enterprise OA system serving 200+ internal users, improving query performance by 35% through SQL optimization
- Automated deployment pipelines and managed server infrastructure supporting MySQL and Oracle databases, reducing manual deployment time by 40%
- Collaborated in agile Scrum teams to deliver high-quality code through pair programming and code reviews