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Highlights

- **Full Stack Frameworks & Design Patterns**
    - Experienced with frameworks: Python Django, Flask, and Spring Boot.
    - Well versed in design patterns: micro services, MVC, MVVM, SOA.

- **Virtualization, Containerization & Cloud Platforms**
    - Proficient in KVM, Virtualbox, VMWare, Vagrant, libvirt.
    - Proficient in Helm, Kubernetes, Docker, Containerd, AWS, Azure; Infrastructure as Code: Terraform, Pulumi.

- **CI/CD Pipelines & Testing**
    - Proficient in initiating/maintaining CI/CD pipelines: Jenkins, GitHub Actions, Bitbucket Pipelines.
    - Skilled with DevOps tools: Jenkins, Ansible; GitOps: Helm, Kubernetes, Harbor, ArgoCD.
    - Skilled in testing: Postman, Cypress, Selenium, Mocha, Jest, Karma, pytest, TDD/BDD.

- **Frontend Mastery**
    - Adept at frontend development using Typescript, Javascript, Storybook, React, Redux, Angular, Material UI, Antd, Bootstrap, and jQuery.

- **API Development & Integration**
    - Proficient in creating RESTful APIs using OpenAPI, Swagger, and Django Rest Framework (DRF).
    - Proficient in API integration: auth, RESTful, JSON, XML, SOAP.

- **Scalable Solutions & Database Tech**
    - Proficient in scalable solutions using Celery, Redis, RabbitMQ; Strong DB and proxy skills: ORM, MySQL, PostgreSQL , Mongo.

- **Development Leadership**
    - Efficiently overseeing software dev throughout SDLC; Proficient in Git, DevOps, GitOps, semantic release, Jira.
    - Leading and managing engineering teams, varying sizes; Roles: PM, Team Lead, System Architect, Developer.

- **Global Team Management& Team Enhancement**
    - Proficient in development best practices and tooling.
    - Rich experience in managing global teams across geo and time zones.
    - Mentorship for junior team members, enhancing overall team quality and efficiency.

Experience

3/2022 - 3/2023   Lucidum, Principal System Architect

- Worked closely with executives in designing the next-generation product architecture, overseeing a successful transition from on-premise-only to a hybrid infrastructure that supports both on-premises and cloud-native environments, and driving expansion of target industry and customer base.

- ❧ Managed a global engineering team. Provided oversight to roles including Project Manager, UX designer, ML scientist, developers (Python, Java, React), QA, and DevOps engineer. Held a direct reporting line to the CTO.

- ❧ Managed the successful execution of 2 major releases, 6 minor releases, and 12 patch releases. Implemented GitOps practices using GitHub Action, GitHub Package Registry, and Semantic Release.

- ❧ Actively participated in coding across every facet of the engineering endeavor, spanning the entire product stack (Python, Java, Typescript, React), QA utilizing Cypress, as well as DevOps involving Jenkins, Ansible, Python, Terraform, and Pulumi.

- ❧ Took the lead in conducting daily PR (Pull Request) reviews across an extensive portfolio of more than 50 GitHub repositories. This encompassed a wide spectrum of programming languages and technologies, ranging from Java, Python, React, Jenkins, Ansible, and Terraform.

- ❧ Established CI/CD Jenkins pipelines w/ multi-branch building, matrix testing, A/B deployment, and integration w/ Github code, Github action, Github package, AWS, and Azure. Implemented robust optimizations in the DevOps practices, resulting in a significant reduction of iteration time from 1.5 hours to 27 minutes.

- ❧ Hardened security in DevOps workflows by adding CVE scanner (code, docker image), and secret managers including Hashicorp Vault and Ansible Vault.

- ❧ Drove substantial improvements in test automation efficiency and effectiveness. Revamped and redesigned 800+ Cypress end-to-end (e2e) tests within a tight timeframe of 6 weeks, achieving 100% automation in User Acceptance Testing (UAT).

- ❧ One of the two company's AWS and Azure administrators. Spearheaded the automation of management and deployment processes, harnessing the power of tools such as SSO, ACR, ECR, ECS, RDS, EC2, spot instances, Lambda, CloudWatch, SNS, and S3.

11/2016 - 3/2022 Lenovo US, P8, Advisory Engineer, Senior Solution Architect, Team Lead

- ❧ Served as the principal architect for the groundbreaking Lenovo Open Cloud Automation solution, taking on a leadership role in its conceptualization and development. Authored the influential reference architecture paper, providing essential guidelines for its implementation. Successfully transformed the solution into a market-ready product within a remarkable 13-month timeframe. The solution's exceptional quality and value proposition played a pivotal role in securing contracts worth over $100 million following its launch.

- ❧ Distinguished as the first author of the highly regarded Red Hat Hyperconverged Infrastructure (RHHI) Reference Architecture. Led the architectural design and development of RHHI's automated end-to-end deployment, assuming a principal architect role.

- ❧ As the principal architect of the Lenovo Workload Solution Store (WSS), played a pivotal role in shaping the platform's architecture and design. The orchestration technology developed under WSS serves as the core foundation of the ThinkAgile VX product. Product was a Django & React full stack.

- ❧ As the UI lead of the ThinkAgile CP product, led a dedicated team of five UI/UX professionals and a DevOps team of four, fostering collaboration and

driving successful outcomes in six major releases. Development was in Figma, AngularJS, Angular, and Redux.

❧ Contributor of Netbox upstream. Customized Netbox significantly to manage a diverse infrastructure comprising over 300 servers and switches located across multiple regions, including the US, Europe, and India. Employed advanced automation techniques to achieve seamless server onboard discovery, provisioning, and reconfiguration processes. Code were in Django, Python, Ansible, and Bash.

❧ Created a robust Django application that seamlessly integrates GitLab and Jira, enabling the tracking of feature requests at the git commit level throughout the entire software development lifecycle (SDLC). This integration provided project managers with unprecedented visibility and insight into the progression of feature implementation, deployment, and overall SDLC stages.

01/2015 - present PY Consulting, Founder, Freelance

❧ Contractor, UNC Chapel Hill, School of Medicine. Successfully modernized and brought back into production three Python applications that are critical to the daily operations of doctors and researchers. Pioneered the establishment of the organization's inaugural containerized deployment, facilitating improved scalability, portability, and resource utilization. Additionally, spearheaded the implementation of its first Continuous Integration and Continuous Deployment (CICD) pipeline, ensuring streamlined and automated software delivery processes. Provide training courses on Git workflow, Docker, Python, Javascript, Cypress, Jenkins, Ansible, Github action, Bitbucket pipeline.

❧ Volunteer, Mass General Hospital. Containerized the deployment of essential machine learning tools, namely `deeplabcut` and `simba`, utilized by clinic researchers. As a mentor, provided guidance and support to a team of three Python developers, imparting expertise in Python programming, version control, and Docker. The mentorship empowered the team to adopt best practices and optimize their workflow, resulting in significant time savings of hundreds of men-hours.

❧ Contributor of the World Bank's "Digital Development Partnership" program. Built the World's Snapshot, a data analysis tool using React, leveraging powerful APIs provided by the World Bank and DHS to ensure accurate and up-to-date data integration. Implemented rich and interactive visualizations by utilizing a diverse range of charting libraries such as D3, Highcharts, Google Charts, eCharts, Plotly, and Dygraphs.

❧ Contractor, "Wei Fashion Group", a renowned Shanghai-based fashion company with global subsidiaries in the US and Europe. Played a key role in developing and implementing their Enterprise Resource Planning (ERP) system and e-commerce store using Django & React, driving digital transformation across the organization.

❧ Contractor, "Shang Xue Tang", a prominent Beijing-based higher education service company. Spearheaded the development of a robust Django application that served as a versatile platform for various functionalities featuring RESTful API, data streaming, chat room, and forum.

❧ Contractor, "Linkage", a dynamic Shanghai-based startup specializing in ODOO (OpenERP) customization. Effectively managed a team comprised of

one business analyst and three engineers, overseeing their work and ensuring the successful delivery of project milestones. Additionally, I authored the "2016-17 Technology Roadmap" for the company, providing a comprehensive and forward-thinking vision for the technological advancements and initiatives to be pursued during that period.

11/2013 - 01/2015   Beijing Lean Strategy Consulting Group, Associate Director

- Led the successful completion of a high-value Request for Proposal (RFP) worth $3 million with a Fortune 500 company, assuming full responsibility for designing their Enterprise Resource Planning (ERP) system.

- Demonstrated exceptional leadership as an overseer of project execution, shouldering the responsibility for the project's profit and loss (P&L) performance. Additionally, played a pivotal role in designing the system architecture, shaping the foundation for a robust and scalable solution.

07/2010 - 11/2013   CrunchTime! Information Technology, Project Manager

- Managed a significant Request for Proposal (RFP) valued at $10 million with Yum! China. This included understanding Yum! China's specific requirements, crafting a compelling proposal, and effectively presenting the value proposition of solution.

- Led the successful development of the company's SalesForce Customer Portal, a key project that significantly enhanced the customer experience and streamlined sales processes. The portal were recognized with the prestigious Bronze prize at the "2011 Steve Awards for Sales & Customer Service."

- Designed and built the company's first mobile application prototype using Cordova, HTML5 and jQuery Mobile.

04/2009 - 04/2010   China Everbright Bank, Business Manager

- Responsible for a $2M RFP.
- Established and built the division's IT branch from the ground up, demonstrating exceptional leadership and organizational skills.

04/2004 - 05/2007   Bit 9 Inc. (Carbon Black), Researcher, Tech Lead

- Led a groundbreaking initiative in reverse-engineering the Windows NT kernel, which resulted in a significant breakthrough that secured the company a remarkable $6 million A-round venture capital investment.

07/1998 - 04/2004   Instron Corp., Senior Engineer

- Single-handed firmware of its new impact testing line. Sales reached $1M in its first year.

Education

- MBA, (04/2007 - 09/2008), International Management & Finance, Boston University
- M. Sc., (09/1995 - 05/1997), Electrical Engineering (Telecommunication & Digital Signal Processing), Ohio University
- B. Sc., (09/1990 - 07/1994), Electrical Engineering, Shanghai JiaoTong University, China

Sample writings & projects

1. https://lenovopress.com/lp1148-red-hat-hyperconverged-infrastructure-for-virtualization-reference-architecture
2. https://lenovopress.com/lp1149-lenovo-open-cloud-reference-architecture
3. https://github.com/fengxia41103/storybook
4. https://github.com/fengxia41103/worldsnapshot
5. https://fengxia41103.github.io/stock/