Bingpeng Xiang

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Education

- **New York University** — Brooklyn, NY
  Master in Computer Science; GPA: 3.78 — *Sep. 2018 – May. 2020*
  TA for CS6083 Principles of Database Systems — *Feb. 2019 – Present*
- **Tianjin University of Technology** — Tianjin, China
  Bachelor of Science in Information and Computing Science; GPA: 3.80 — *Sep. 2014 – Jul. 2018*

Experience

- **Amazon Web Service** — Seattle, WA, USA
  Software Development Engineer — *July. 2020 – Current*
  - Launch of AWS IoT SiteWise Edge, an on-premises software solution for industrial sites that streamlines the collection, processing, and monitoring of equipment data locally before transmission to AWS Cloud.
  - Achieved a significant performance boost in the IoT SiteWise Edge data processing module, increasing throughput from 2 to over 5,000 transactions per second (TPS).
  - Implemented AWS IoT SiteWise Edge integration with Siemens Platform, enabling customers to seamlessly transmit industrial equipment data from Siemens devices to the AWS cloud, enhancing visibility across production lines and facilities.
- **Tencent** — Shenzhen, China
  Software Development Engineer Intern, Continuous Integration(CI) Team — *Jun. 2019 – Aug. 2019*
  - Optimized the run-time environment of the CI runner to support custom language, container, and OS.
  - Implemented multiple plugins to integrate other internal platforms including git platform, deployment platforms, Windows and iOS software sign service, and Android and iOS close alpha service.
  - Collaborated with Tencent Cloud Virtual Machine Team to develop CI workflows which shorten the release cycle time from 5 hours to 1 hour. Also developed a release workflow for Tencent Video software.
- **Yuantek** — Beijing, China
  Software Development Engineer Intern, Traffic Analysis Team — *Apr. 2018 – Jun. 2018*
  - Implemented a declarative packet manipulation library using metaclasses in Python, which will be able to encode/decode whole company-wide Type-Length-Value(TLV) format communication protocols.
  - Designed a Telnet command interface to provide a run-time monitor with features of command completion, command history, and subcommand.
  - Refactored the legacy IP extraction program in Python to support run-time monitor, crash recovery, and also resulted in a 30% reduction in the rate of the program crash.
  - Launched a 24/7 service to extract URLs matching the specific pattern from email and transferred them to the partner companies that had over 99.9% reliability.
- **Tianjin University of Technology** — Tianjin, China
  Research Assistant, Data Management Software for Smart Agriculture — *Dec. 2017 – May. 2018*
  - Designed fully managed service with two researchers, which is capable to connect, manage, and ingest data from agriculture sensors.
  - Built RESTful APIs using the Flask framework in Python which provides authentication, filter, CRUD endpoints.
  - Developed a desktop app using Qt framework in C++ which enables users to analyze, visualize IoT data in real time, and configures custom alerts and triggers to monitor any environmental change.
  - Promoted the extensibility and control granularity of the sensor by integrating a special description file.

Programming Skills

- **Languages**: Python, Java, C++, PHP, SQL, JavaScript, HTML
- **Technologies**: Git, Vue.js, React, Vim, Bash, Regex, Docker, Markdown, MySQL, AWS