John Pan

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Education

Georgia Institute of Technology, College of Computing   **Atlanta, Georgia, USA**
Master of Computer Science, Aug 2024 – Aug 2026

McGill University, Faculty of Engineering   **Montreal, Quebec, Canada**
Bachelor of Mechanical Engineering, Computer Science minor. CGPA: 3.66/4.00, Aug 2016 – May 2021

  Courses: Data Structures & Algorithms, Database Systems, Java OOP, Software Systems, Applied Machine Learning, AI, Programming Languages & Paradigms

Experience

Bell Canada – Montreal, QC.   Feb 2022 – Feb 2024
Software Engineer
Full-stack web development in the Bell Network Cloud Portal

- Led and developed the **full-stack** integration of 5 features, achieving significant process improvements, including an 80% reduction in lead time for cloud deployments, saving an average of 450 man-hours. (**Vue2 Typescript, Python Django REST Framework)**
- Implemented numerous UI features and components in a scaled trunk-based development environment, which accelerated daily administrative tasks such as data management by 90%. (**Vue2, Typescript**)
- Built, and maintained robust **CI/CD pipelines** for new and existing applications, resulting in a 40% reduction in production bugs and 20% improvement in deployment speed of new updates. (**OpenShift, Kubernetes, Docker, Gitlab-CI, Artifactory, Helm, Vault**)
- Developed comprehensive **Grafana** dashboards to visualize backend data as well as application health monitoring (**Prometheus**) enabling real-time analytics and insights. (**Grafana, Prometheus**)
- Demonstrated strong customer focus and initiative by resolving 25% of all issues reported in the year 2023, with a 90% closure rate within 2 days.

Damotech – Montreal, QC.   May 2021 – Oct 2021
Project Engineer

- Undertook the development of a machine learning model to classify rack damage image data to assist inspection duties. The first iteration of this model obtained a 67% test accuracy. (**Scikit-learn**)

Projects

Autopilot Pi-Car – GitHub   January 2024 – May 2024

- Developed autopilot software for a Raspberry Pi-powered car. (**Python**)
- Enabled traffic sign recognition using computer vision to enhance navigational accuracy. (**TensorFlow, OpenCV**)
- Implemented path following capabilities using **A* search** on a matrix scanned using ultrasonic radar allowing autonomous navigation.

***NightKidz* Social Media App** – GitHub – Website   Dec 2021 – May 2022

- Built a full-stack social media application (**ReactJs, Node.js, Express & MongoDB**) designed for automotive enthusiasts to interact and share their passion.
- Implemented features such as authentication using **Google OAuth** and **JWT**, pagination, commenting.
- Integrated **react-redux** for state management.
- Front-end and Back-end are respectively deployed using Netlify and Firebase.

Programming Skills: Python, JavaScript/TypeScript, Java, C, C++, SQL, OCaml, HTML, CSS/Bootstrap/material-UI

Other: Git, ReactJS, Redux, VueJS, Docker, Kubernetes, Helm, GitLab-ci, Django REST framework, Postgres, Scikit-learn

Interests: Building Apps, Stock trading, podcasts, motorsports (Formula 1), automotive enthusiast, traveling