

Chen Peng

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Education

University of Waterloo

Waterloo, ON

Honors Bachelor of Computer Science

Sept 2022 - April 2026

- **Courses:** Algorithms, Operating Systems, Compilers, Data Structures, Object-Oriented Programming, Computer Organization and Design

Skills

Languages: Python, Java, TypeScript, JavaScript, C++, C, C#, SQL, PHP, Bash, HTML, CSS

Libraries / Frameworks: React.js, AngularJS, Django, Express.js, ASP.NET, Selenium, Pandas, Scikit-learn, Matplotlib, NumPy

Technologies: PostgreSQL, SQL Server, MongoDB, Redis, Amazon Web Services, Microsoft Azure, Heroku, Docker, Node.js, Git, Linux

Experience

Home Trust Company

May 2024 - Aug 2024

Software Engineer Intern

Toronto, ON

- Architected an **Angular** and **ASP.NET** application to automate competitor bank rate updates, integrating with **Azure SQL** for real-time data management, reducing manual processing time by **80%**
- Designed **MSSQL** database schemas and developed **REST APIs** using **ASP.NET Core** for real-time bank rate retrieval
- Reduced HTTP request latency by **15ms** by optimizing **SQL queries** through indexing, efficient joins, and database normalization
- Deployed the rate updater application to **Microsoft Azure** using **YAML** and **PowerShell** scripts, leveraging **Azure Static Web Apps**, **Azure App Service**, and **Azure SQL** to optimize resource scaling and reduce operational overhead
- Optimized the software release process by engineering **CI/CD pipeline scripts**, streamlining build, test, and deployment workflows

UW Quantitative Finance Design Team

Jan 2024 - Aug 2024

Quantitative Developer

Waterloo, ON

- Developed a backtesting engine to simulate trading strategies on historical data to evaluate performance using **Python**, **NumPy**, and **Scikit-learn**, resulting in improved trading strategy outcomes through iterative testing and optimization
- Implemented 5+ backtesting UI components in **React** and **TypeScript** for real-time visualization of trading models
- Researched **Cross-Exchange Arbitrage** opportunities between Binance and Poloniex, identifying **25+** profitable cryptocurrency pairs

Rogers Communications

May 2023 - Sept 2023

Full Stack Developer Intern

Toronto, ON

- Led a 6-person team in developing core features of a reusable application template, achieving a **95% reduction** in new app setup time
- Implemented asynchronous task handling with **Workers** and **RabbitMQ's** message queuing to enable parallel task processing, optimizing load balancing and scalability for the reusable application template
- Leveraged **AWS Cognito** and **Systems Manager Parameter Store** to implement SSO, encrypt and version application configurations
- Upgraded **3** legacy Angular applications to **Angular 15** and containerized applications with **Docker**, streamlining deployment processes
- Conducted unit, integration, and end-to-end testing with **Selenium**, **Mocha**, **Chai**, and **Jest**, fixing **15+ bugs** and resulting in up to **83% increase** in code coverage across multiple applications

The Reckoner

Oct 2018 - July 2021

Web Developer

Toronto, ON

- Managed the development of the **award-winning** high school newspaper website, used by **1800+** students, staff, and parents
- Mentored team members in web development with **JavaScript**, **HTML**, **CSS**, **PHP**, and **WordPress**, fostering continuous learning

Projects

RecipeMaster | Python, Django, PostgreSQL, Docker, AWS, Swagger, GitHub Actions

- RecipeMaster is a **Django** web app for creating, searching and managing recipes, built with **test-driven development** principles
- Implemented a CI pipeline with **GitHub Actions**, automating code quality checks and unit testing for reliable deployments
- Deployed the application on **AWS EC2** with **Docker**, streamlining containerization and deployment processes
- Configured **Nginx** with **uWSGI** for reverse proxying and optimized static and media file management, improving system performance

Facebook Clone | React.js, Express.js, Node.js, MongoDB

- Developed a responsive Facebook clone with profile and post creation, dynamic friends system, and secure session management
- Integrated **JWT-based OAuth** for authentication and **Cloudinary** for efficient image handling