Pak Hong (James) Leung

Github – https://github.com/james-leung
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Full-stack Web Developer

As someone with a Ph.D. in physics, I am a natural problem-solver with extensive experience in leading teams of researchers, mentoring junior students, and writing peer-reviewed scientific papers. With 5+ years of experience in object-oriented programming, I am now an aspiring web developer, with a focus on building responsive single-page applications (SPA) using Angular as well as robust and efficient REST APIs using .Net Core 3.1 and Node.js. I have also taken an interest in solving algorithms, having completed 100+ questions on LeetCode with Javascript.

Technical Skill Set

Frameworks
- .Net Core
- EF Core
- Node.js & Express
- Angular 2+ & React
- Bootstrap 4

Languages
- C#
- Typescript
- Javascript
- Python

Source Control
- Git
- Azure Devops

Other Skills
- HTML / CSS
- SOLID Principles
- SQL Databases
- Visual Studio

Projects

- Burgler – Fast food ordering website (.Net Core, Angular, SQL Server): https://burgler.azurewebsites.net/
- My portfolio website (Jekyll): https://james-leung.github.io/
- Quantum Circuit Simulator (Python) https://github.com/james-leung/Quantum-circuit-simulator/
- An optimiser for 2-qubit quantum gates (Python)

Professional Experience

Individual Software Developer **2018 - now**

- Front-end: using Angular 2+ to build client-side SPA applications handling JSON data
- Back-end: using .Net Core 3.1+ to build REST-ful API's that are secure and robust

- Established CI / CD pipelines using Azure DevOps with complete deployment cycles
- Writing unit tests (e.g. XUnit) to make sure the application behaves as intended
- Completed dozens of Udemy courses on full-stack web development and programming best practices
- Solved LeetCode algorithms of all difficulties with Javascript

Duke University **2018 - 2020**
Graduate Student Programmer

It was my responsibility to simulate quantum circuit operations in a system of trapped ions, where I established the link between error parameters and output circuit parameters.

- Wrote my own quantum circuit simulator (90 % agreement between simulation and experiment)
- Coding Python in Jupyter Notebook
- Worked with teams of up to 5 people (quantum control group)
- Weekly presentations using whiteboard and projector

Georgia Institute of Technology **2015 - 2017**
Graduate Teaching Assistant

Nurturing undergraduate students in physics in interactive labs and Q&A sessions.

- Briefing students in physics labs using whiteboard (class sizes of about 30)
- Teaching students Python code using the IDLE IDE
- Help desks: 1-to-many and 1-to-1 tutorials where I helped students with their assignments and exams
- Grading mid-term exams according to a marking scheme

Education and Training

Education:

2018-2020 Duke University: Ph.D. in physics
2015-2017 Georgia Institute of Technology: Master's in physics
2011-2015 Chinese University of Hong Kong: Bachelor's in physics

Please contact me for references.