

Cheuk Lau

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EXPERIENCE

- **Insight** Palo Alto, CA
DevOps Fellow *Jul. 2018 - Present*
 - **DevOps Pipeline:** Automatically deployed and monitored a data engineering pipeline handling 500GB of spatial-temporal data using a Terraform/Packer/Prometheus stack.
 - **DevOps Deep Dive:** Increased scalability and fault tolerance by using AWS auto-scaling and elastic load balancers across multiple availability zones.
- **Lawrence Livermore National Laboratory** Livermore, CA
Computational Physicist *Jul. 2016 - Jul. 2018*
 - **Code Verification:** Automated testing of scientific codes by creating test scripts comparing computational to analytic and experimental results.
 - **Code Developer:** Furthered the capability of scientific codes in multiple disciplines e.g., plasma physics, fluid dynamics, radiation transport by implementing and testing new methods from academic journals.
 - **Mentor:** Provided guidance and technical direction to PhD-level summer interns.
- **Texas A&M University** College Station, TX
National Excellence Fellow *Aug. 2011 - May. 2016*
 - **Code Developer:** Improved the computational efficiency of radiation transport codes by developing adaptive mesh refinement strategies.
- **Knolls Atomic Power Laboratory** Niskayuna, NY
Nuclear Engineer *Aug. 2008 - Aug. 2011*
 - **Code Developer:** Furthered the capability of radiation transport codes by implementing and testing new methods from academic journals.
 - **Field Testing:** Validated radiation transport codes by gathering instrumentation data from aircraft carriers and submarines for comparison.

EDUCATION

- **Texas A&M University** College Station, TX
Doctorate of Philosophy in Nuclear Engineering *Aug. 2011 - May. 2016*
- **Pennsylvania State University** University Park, PA
Master of Science in Nuclear Engineering *Jan. 2009 - Dec. 2010*
- **University of Illinois** Urbana-Champaign, IL
Bachelor of Science in Nuclear Engineering *Aug. 2004 - May. 2008*

PROJECTS

- **Catalog App:** https://github.com/cheuklau/catalog_app App built on Flask demonstrating create, read, update and delete (CRUD) functionalities using an SQL backend with third-party authentication.
- **Neighborhood App:** https://github.com/cheuklau/neighborhood_app App demonstrating the use of Javascript libraries (Knockout JS) and multiple third-party APIs (Google Maps and New York Times).

CERTIFICATIONS – AVAILABLE UPON REQUEST

- **Udemy DevOps:** Series of courses on DevOp tools (Docker, Kubernetes, Jenkins, Puppet, Terraform, Prometheus).
- **Udacity Full-Stack Engineering Nano-Degree:** Certificate covering both front and backend development along with server deployment. (HTML, CSS, Javascript, jQuery, Knockout JS, Flask, SQL, Apache, AWS).