An Phan

Software Engineer

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Education

Brown University *Providence, Rhode Island*

B.S. in Computer Science and Applied Mathematics (GPA: 3.7) *August 2015 - May 2019*

- NCAA Division I Varsity Women's Track and Field
- Singh Family Undergraduate Teaching Assistant Award, 2019 Rewriting the Code Fellowship

Work Experience

Cisco *San Jose, California*

Software Engineer *August 2019 - Present*

- Overhauled internal search to directly answer inputted questions using Natural Language Processing (NLP) models and the Stanford Question Answering Dataset (SQuAD) without needing to open search result links.
- Optimized internal search results by dividing over 550,000 documents into tree-structured, header-based chunks that improved search result accuracy by pointing users directly to relevant passages.
- Spurred adoption rate of new typeaheads to 108% of existing solution within three weeks of launch.
- Reduced customer support-related costs by $2 million (20,000 cases) annually by creating an API that utilizes named-entity recognition to detect customers' product needs and present related resolved cases.
- Migrated foundation services from Flask to FastAPI, improving latency and throughput by over 300% in staging and production.
- Produced containerized services, deployed via Docker images, to provide endpoints that include metadata from technology pages, which are used in migration from on-prem servers to cloud.

Defense Advanced Research Projects Agency (DARPA) *Providence, Rhode Island*

Research Assistant (bit.ly/nrthstar) *October 2018 - May 2019*

- Part of a team of Brown and MIT computer scientists that won $3.1 million in grants from DARPA.
- Added a capability to the Northstar interactive data system that instantly generates the best machine learning models from a list of possible pipelines to use with existing data sets in order to produce predictions for patient health outcomes.
- Performed system diagnostics, ran prediction tasks using scikit-learn, and cleaned large data sets on the "virtual data scientist" component of Northstar, resulting in a reduction of type I and type II prediction errors from 30% to 12%.

Brown University Department of Computer Science *Providence, Rhode Island*

Teaching Assistant *January 2019 - May 2019*

- Held twice-weekly office hours and graded approximately 300 assignments, midterms, and finals for machine learning course.

Boomerang *Mountain View, California*

Software Engineer Intern *Summer 2018*

- Created a backend server for the web development team using Django.
- Prototyped a new contact card application in Angular for integration with the Boomerang extension.

Telesense *Sunnyvale, California*

Software Engineer Intern *Summer 2017*

- Created a skeleton for the 2.0 phone application of the startup using Apache Cordova, JavaScript, HTML, and CSS.
- Designed the user experience and user interface for the prototype using Proto.io.

Skills

Software Languages, Databases, and Frameworks

- Python, Java, Scala, OCaml, C, TypeScript, JavaScript, HTML, CSS, SQL, MySQL, MongoDB, FastAPI, Angular, Git

Programming Projects

Lunch Grouper (Angular)

- Solves the problem of who to sit with at lunch by randomizing people into a given number of groups.
- Created to help Boomerang make lunch reservations as the company scaled during Summer 2018.

Onion (Python)

- A web application that asks users to differentiate between real and fake news headlines. Used to gather statistics on how often people would believe what they read from unreliable sources: users differentiated incorrectly 30% of the time on average.