Patrick Cao

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Education

University of Maryland, College Park *College Park, MD*
CANDIDATE FOR B.S. IN COMPUTER SCIENCE, GPA: 3.96 *Expected 2022*
University Honors, Recipient of President's Scholarship

Experience

Leidos *Gaithersburg, MD*
SOFTWARE INNOVATION DEVELOPMENT INTERN *June 2019 – Aug 2019*
Support Leidos' Internal Research and Development (IRAD) team
- Created a geospatial data manipulation/visualization tool capable of handling tens of millions of coordinate points, exposed through a RESTful API using Java, ElasticSearch, and AWS
- Created a FUSE filesystem to stream image tiles from a server into a local file for backwards compatibility with commercial off the shelf electronic light tables

(Java, Javascript, Angular, AWS, ElasticSearch, Data visualization, Image processing)

Institute for Bioscience and Biotechnology Research *Rockville, MD*
DEVELOPER INTERN *June 2017 – Aug 2017*
Refactored the Biological Macromolecule Crystallization Database
- Migrated website to Laravel framework
- Worked with MySQL and PHP to improve database data collection process, reducing runtime from ~48 hours to ~3 hours
- Developed algorithm to identify chemical reagent names from plaintext

(PHP, MySQL, HTML, CSS, Laravel)

Skills

Languages Java, C, Javascript/Node, Python
Web React, Express, HTML/CSS
Technologies MySQL, MongoDB, Git

Projects

See more at https://prcao.github.io/

Listen Together *https://github.com/prcao/listen-together*
Designed and built a web application that allows users to view, request, and vote on music in real-time
(NodeJS, Express, React, MongoDB, Bootstrap, Socket.IO)

Endgame *https://github.com/prcao/endgame*
Built a 2D game engine with Java to implement a feature rich RPG shooter
(Java, Java.awt)

Leadership

Taiwanese American Student Association *October 2018 – Present*
JUNIOR OFFICER
- Manage development of website and app of Intercollegiate TASA's 2020 East Coast Conference
- Organize, coordinate, and promote TASA events

Achievements

Winner, Capital One Best Financial Hack, Equals-Equals Hackathon *March 2019*
Runner-up, Bitcamp Decentralize Everything: Blockchain challenge *April 2018*
1st Place, Lockheed Martin Code Quest Regionals, Novice Division *April 2017*