

Bo Cao

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EDUCATION

- **Stony Brook University** Stony Brook, NY
Master of Science in Computer Engineering, GPA: 3.42 *August 2017 – May 2018*
- **Stony Brook University** Stony Brook, NY
Bachelor of Engineering in Electrical Engineering, GPA: 3.35 *January 2013 – May 2017*

PROGRAMMING SKILLS

- **Coursework:** Analysis of Algorithms, Cloud Computing, Pattern Recognition, Digital Image Processing
- **Languages:** Java, Python, JavaScript, GO, C#, SQL, L^AT_EX, MATLAB
- **Technologies:** AWS, Kubernetes, Docker, Jenkins, Microsoft Azure, Bot Framework, LUIS, Git, Node.js

EXPERIENCE

- **Dell** Reston, VA
Software Engineer *September 2018 - Present*
 - **AWS DevOps Architecture:** Built DevOps environment using AWS services, including EC2, Lambda, S3, RDS, Route53, Elastic Container Service for Kubernetes (EKS), Elastic Container Registry (ECR).
 - **AWS Lambda Warming Research:** Researched and developed a solution for AWS Lambda Warming issues, which improved the performance by 48%.
 - **AWS EKS kubernetes Cluster:** Created and maintained a 4-node kubernetes cluster using AWS EKS, using Helm charts to automate the continuous deployment process and integrating with GitHub enterprise.
 - **Jenkins CI/CD:** Developed Continuous Integration and Deployment pipelines using Jenkins between on-prem servers and AWS cloud services.
- **Dell** Austin, TX
CTO Software Architecture Intern *May 2017 - August 2017*
 - **Dell SupportAssist:** Integrated Microsoft Cortana and Amazon Alexa voice skills with Dell SupportAssist.
 - **Chat Bot:** Built a chat bot using Microsoft Bot Framework for common customer service questions and automatic solutions, integrated voice understanding compatibility with LUIS service.
 - **Voice Assistance Server:** Set up a RESTful instance to communicate between Microsoft Azure and a local device, implemented a local server to perform operating system actions triggered by Dell SupportAssist commands.
- **National Grid** Melville, NY
Software Development Intern *May 2016 - December 2016*
 - **Course Website:** Developed 6 new website features to improve efficiency of monitoring National Grid Process Safety Training Status of field workers and upcoming training strategies in real time.
 - **Material Catalog:** Designed new website features with real-time material information viewing and editing.
 - **Database Maintenance:** Documented architecture and implementation for 40,000 database-linked customer accounts on SQL server and Microsoft Access.
 - **Company Representative:** Selected as top performer to present the newly designed website features to National Grid senior management group.

PROJECTS

- **Movie Rental System:** A website with different subscription plans using relational database systems. Developed a Movie Recommendation System using Nearest Neighbor classifier and Logistic Regression algorithm.
- **Cooking Structure Application:** A fully functional Android Application developed with Android Studio and Firebase database. It is embedded with several sensors and services to improve interaction with cooking procedures.
- **Air Traffic Control Simulation:** A system assigns departure and landing procedures by calculating aircraft altitudes and other aviation attributes with control panel visualization.
- **Force Sensing Arm Apparatus:** A portable device using force-sensitive material resistors on the gripper and elbow motors in a closed feedback loop. The force sensing capability is applied to a robot claw structure to give proper gripping force to pick different objects depending on their weights.