Benjamin Chang

Active DoD Secret Clearance

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WORK EXPERIENCE

Naval Air Systems Command

August 2018 - Present

Software Engineer

- Designed, implemented, and tested a solver for combinatorial optimization in C++
- Collaboratively developed a software system for autonomous vehicle planning with an agile team
- Directly interfaced with naval fleet support teams and test cell engineers to study engine events to maintain mission-capability of aircraft engines
- Received a departmental award for high impact contributions to the fleet
- Created statistical analyses and visualizations of large aircraft datasets using Python libraries and machine learning (Dash, Pandas, Keras)

University of Maryland

August 2017 - December 2017

Flight Software Systems Teaching Assistant

- Revamped assignments, slides, and developed course content in Python to enrich aerospace students' computer science knowledge and skills
- Engaged with over 60 enrolled students, answering questions concerning course material and lab assignments

U.S. Army Research Laboratory

May 2017 - August 2017

Engineering Intern

- Assisted in researching and writing "First Demonstration of a Bending-Mode Elastocaloric Cooling 'Loop'", a publication for the IEEE Conference Paper 2018

PROJECTS

Sdock App

Site: main.sdockapp.com

Src: github.com/ben21045/sdock-public

- Developed an application using the PERN stack (PostgreSQL, Express.JS, React.JS, and Node.JS) for evaluating financial instruments and analyzing a personal portfolio
- Deployed on AWS using Fargate, RDS, and Route 53 services
- Implemented authentication system with Passport.JS

Aircraft Design Capstone

Fall 2017 - Spring 2018

Team Leader

- Selected by peers to lead a team of five students, distributing the workload and ensuring all milestones were properly met
- Researched and developed an aircraft configuration to meet customer constraints, developing conceptual and preliminary design reports
- Received top scores for term project

TECHNICAL COMPETENCIES

- **Languages:** C++, Python, MATLAB, Java
- **OS:** Windows, Linux
- **Web Frameworks:** Node.JS, Express.JS, React.JS, PostgreSQL, MongoDB, Django
- **Machine Learning:** Keras, Tensorflow
- **Other:** AWS, Git, Jira, VirtualBox, Docker, Agile (scrum)

EDUCATION

University of Maryland College Park

August 2014 - May 2018

B.S. Aerospace Engineering | **GPA: 3.78**

Honors and Awards:

- Banneker Key Scholarship - Awarded to top 2% of University of Maryland's class
- Departmental honors in Aerospace Engineering