

# Benjamin Danek

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Full stack engineer inspired to benefit humanity by building exceptional software.

## SKILLS & INTERESTS

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- **Technology I Want to Contribute to**  
Web Interfaces.  
Distributed and Serverless computation.  
Machine Learning and Optimization Applications.
- **Tools & Languages**  
Typescript, React, Python, Java, C++, C, Bash, Figma.  
English, Czech, Spanish.

## EXPERIENCE

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- **New Relic Inc.**  
Full Stack Software Engineer - San Francisco, CA  
Developed a novel product, Errors Inbox, for consolidating outputs of New Relic's various observability products.  
**Tools:** React, Typescript, Java, Docker, SQL  
*Summer 2021 - Present*
- **New Relic Inc.**  
Full Stack Software Engineering Intern - Phoenix, AZ  
Solved UI and backend bugs in Synthetics legacy code-base, implemented novel product features.  
**Tools:** React, Angular, Typescript, Java, SQL  
*Summer 2020*
- **Lam Research Corporation**  
Hardware Engineering Intern – Fremont, CA  
During 2018 Summer made dataset and implemented Deep Neural Network in component manufacturing process.  
During 2019 Summer designed a system for generating and collecting time series test data for predictive maintenance model.  
**Tools:** Python, Keras, OpenCV, ExpressPCB, Arduino  
*Summer 2018, Summer 2019*
- **Arizona State University**  
Undergraduate Research Assistant – Tempe, AZ  
Participated in Deep Learning Research group under Dr. Yi Ren. Led the Adversarial Attack on RL Agents project.  
**Tools:** Python, OpenCV, Tensorflow  
*Spring, Fall 2019*

## EDUCATION

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- **B.S.Computer Science CGPA: 3.65/4.00**  
Arizona State University 2017-2021
- **Significant Courses**  
Data Structures and Algorithms  
Design Optimization Techniques  
Autonomous Exploration Systems  
Applied Computational Methods  
Multimedia Information Systems  
Advances in Robot Learning  
Foundations of Algorithms  
Semantic Web Mining  
Quantum Computation

## PROJECTS

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- **FURI Adversarial Attack on RL Agent**  
Implemented program which leverages gradient based optimization for generating perturbations which can be used by an adversary to control an autonomous reinforcement learning agent.  
<http://designinformatics-lab.github.io/>  
*Python, Tensorflow, Numpy*
- **DRIFT: Drone Research Integrated Fuzzing Tool**  
This project aimed to enable open source development of mission critical robotics software by doing automated bug discovery. Senior Capstone Group Project in partnership with Jnanshwar Das at ASU.  
<https://github.com/DREAMS-lab/DRIFT>  
*Bash, Travis CI, AWS, AFL*

## EXTRACURRICULAR

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- **Chicanos Por La Causa Volunteer**  
FIRST Lego League Coach – Phoenix, AZ  
Team #46178, Chicabots.  
*Fall 2019*
- **Arizona State University**  
Undergraduate TA – Tempe, AZ  
CSE 240 Introduction to Programming Languages.  
*Spring-Fall 2019*