# FILIP MAZUREK

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### **EXPERIENCE**

#### Associate UX Designer

**Appian** 

Appian is a low-code platform as a service which specializes in quick deployment for enterprise applications simultaneously on web and mobile

- Created detailed wireframes and interactions for 2 new features every quarter as an expert on iOS and Android application design
- Conducted user testing and research to iterate on features
- Developed training courses on user testing for UX Designers and Product Managers to standardize procedure within the company

#### Student UX Designer

**Duke UX Department** 

- Identified a need to inform students about exhibits on display in the library and in off-campus buildings
- Conducted user tests and summarized findings to improve library website layout and content

#### Software Engineer Intern

- Built an easy-to-configure expression to simplify pulling data from a database and display it in a custom layout using Java.
- Presented the new feature to the founders of Appian, senior engineers, and customers during Appian's quarterly release demo day

### Student Engineering Research Technician

CDC / NIOSH

The Center for Disease Control (CDC) is the US national health protection agency. NIOSH is the occupational health branch

- Used Matlab machine learning to optimize classification parameters for rat breathing data in an investigation to parametrize the effects of silicosis on breathing.
- Found that each dataset required specific calibration depending on breathing chamber used before classification.

#### Research Assistant

• Performed differential counts on baboon blood treated with the Wright-Giemsa stain to investigate the effects of baboon colonies living near human populations.

## LEADERSHIP

#### Teaching Assistant: Computer Architecture

**Duke University** 

TA for the Computer Architecture class (CS/ECE 250). Taught students computer architecture principles and the basics of C during discussion sections. Administered and graded exams, graded homework, and held office hours.

#### Makers Club Executive

**Duke University** 

Created and led twice-monthly technology workshops which focused on creating practical devices. Taught CAD, 3D printing, Arduino coding with breadboards, and Raspberry Pi use.

## **EDUCATION**

### **B.S.** Computer Science

**Duke University** 

May 2018

**■** GPA: 3.78 / 4.00

#### Coursework

Software Design and Implementation Operating Systems • Database Systems Cyberphysical System Design Medical Device Software Design

## **PROJECTS**

VoogaSalad

励 Java

Design environment and engine for role-playing games

MovieSpin

励 Java Play

A database-driven web app to help users discover and save movies.

QNN

**砂** PvQuil

A quantum neural network which works as a binary classifier on a very small dataset.

Verification

டு Simulink/UPPAAL

Formal verification of a 4-speed automatic transmission by timed automata. Paired with a physical simulation

Ultrasound GUI

励 Python, C++

An interface which interprets ultrasound data, compensates for harmonic interactions and distance weakening, and creates an image.

Heart Monitor

ெ Python

Interface which reads EKG data, detects heartbeats, and displays the heart rate

Heap Manager

Simulation of efficiently managing computer heap memory

VQU

Variational Quantum Unsampling is a verification algorithm based on QNN. It finds operation rotation parameters based on final quantum states.

## **SKILLS**

#### Programming </>

Java • Python • C/C++ • MATLAB

Qiskit • PyQuil • Cirq • ProjectQ

- Specialize in back-end development
- Experience with implementation of quantum computing algorithms