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

Quantum TSP

砂 Qiskit

A QAOA approach to solving the travelling salesman problem using Qiskit.

QNN

ิ PyQuil

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

VQU

砂 PyQuil

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

Verification

励 Simulink/UPPAAL Formal verification of a 4-speed automatic

transmission by timed automata. Paired with a physical simulation

VoogaSalad

कि 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.

Heart Monitor

砂 Python

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

Heap Manager

Simulation of efficiently managing computer heap memory

SKILLS

Programming </>

Java • Python • C/C++ • MATLAB

Qiskit • PyQuil • Cirq • ProjectQ

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