

Emil M. Berbakov

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EDUCATION

The Pennsylvania State University, University Park, PA
Bachelor of Science in Mechanical Engineering
Minor in Mathematics

Received May 2019, GPA: 3.51

WORK EXPERIENCE

Epic Systems, Verona, WI

Technical Solutions Engineer

June 2019–July 2022

- Wrote customer-facing documentation to explain how to achieve desired functionality and navigate issues in a highly customizable Electronic Health Record (EHR) software
- Designed MUMPS and SQL search queries to troubleshoot, extract, and work around variable data sets for individual organizations, health systems, and Epic software as a whole
- Wrote and quality tested implemented MUMPS code for updates to front and back end operations
- Managed customer escalations to resolve issues that posed a risk for negative patient safety, reporting, monetary, data processing, and data recovery outcomes
- Led interdisciplinary teams through the process of analyzing rare occurrences in software functionality, including troubleshooting and identifying root cause
- Deployed user-centered design principles to improve clinician and end-user experience in the system to fit the customer's needs, such as automating patient data entry and analyzing system metrics to reduce alert fatigue
- Implemented customer feedback to improve user accessibility and generated new ideas for future software updates

Laurell Technologies Corporation, North Wales, PA

Research & Development Intern

May 2017–August 2018

- Leveraged Computer-Aided Design (CAD) to simulate redesign options that reimagined how to safely disengage chemical lines without disrupting the airtight seal in the machine
- Conducted regular cost-energy efficiency analyses by surveying the market, identifying liquid-pumping device alternatives, and experimenting to test their performance
- Monitored liquid pressure and velocity using fluid dynamics to calculate and execute necessary adjustments
- Programmed and operated an industrial milling machine to manufacture parts for prototyping and production

SKILLS

Computer-Aided Design

Customer Relations

Data Analysis

Finite-Element Analysis

Project Management

Technical Communication

User Accessibility

PROGRAMMING EXPERIENCE

Python

MUMPS

SQL

MatLab

Simulink

HTML