# Petek Sener

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## Summary

Versatile and highly-motivated biomedical engineer with three years of experience in software development and device design for class II medical devices. In-depth knowledge of full software development lifecycle including design, coding, debugging, and maintenance of web applications.

## Work Experience

**MicroElastic Ultrasound Systems**                                          June 2019 - Current
Software Engineer

*Software Development*
- Designed and developed a front-end desktop application for an ultrasound device using React.
- Successfully implemented over 15 new software features and improved user experience.
- Created more than 3 custom data visualization GUIs to meet client's clinical research requirements..
- Built a back-end server with REST API using object-oriented programing in Python and Flask.
- Added WebSockets to React application and Python back-end to achieve two-way communication.
- Worked with data-processing libraries such as NumPy and Pandas to generate ultrasound images.
- Introduced Python threads to the back-end data flow and reduced sample processing time by 30%.
- Integrated the front-end and back-end systems on multiple OSs including Windows, Linux and Mac.
- Created shell scripts to decrease software installation time in device assembly by 75%.
- Streamlined data sharing with clients by adding a new feature for syncing data with Google firestore.
- Maintained 2 publishing software branches and released over 5 stable versions using Git, ensuring all code changes met company standards before being pushed to production

*Medical Device Design*
- Translated customer product requirements into design inputs and design outputs to prepare design control documents that meet regulatory guidelines.
- Designed various device enclosures using 3D CAD for rapid prototyping.
- Assisted in the assembly of 10 prototype devices by testing cables, soldering, and laser cutting.

*Leadership and Client Communication*
- Delivered device software training to over 12 clients both remotely and in person.
- Provided on-site and off-site technical support for clients. Troubleshooted over 20 issues.
- Supervised 3 engineering interns, conducting code reviews and weekly meetings.

## Skills

Programming: Python, JavaScript (ES6), Git, React, HTML/CSS, Electron, Fusion360, and SQL (MySQL).
Technical: 3-D printing (SLA and FDM), Laser cutting, Soldering

## Education

**Duke University, Pratt School of Engineering**
Masters of Engineering in Biomedical Engineering, GPA: 3.80/4.0
Bachelor of Science in Engineering in Biomedical Engineering