Brandon Zettek

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EDUCATION

Indiana University, Bloomington
Bachelor of Science in Intelligent Systems Engineering
*Concentrations in **Computer Engineering**,*
Cyber-Physical Systems
Minor in Mathematics
INgineering Club, Basketball Club, Ski Club, and Career Services Tutoring.

Relevant Coursework **May 2023**
Overall GPA: 3.72
High Performance Computing
Systems Engineering
Web Developement
Cloud Computing
Cybersecurity
Networking

TECHNICAL SKILLS

Programming Languages: Python, C
Development: JavaScript, React, Node.js, HTML5, CSS
Operating Systems: Microsoft Windows, macOS, Linux, Unix
Miscellaneous: Docker, Flask, Radare2, Visual Studio Code, Jekyll, Git, Airtable, Ubuntu, Raspberry Pi, CompTIA A+

EXPERIENCE

Technical Internship, Duck Creek Technologies, Boston, MA **May 2021 - Present**
- Integrated new React features into an existing codebase.
- Used a REST API to fetch data from an Airtable database with over 1000 records.
- Independently deployed new builds and maintained the website from a development phase to a live website.
- Utilized React, JavaScript, HTML5, and CSS in an internal website that is used daily by marketing and sales.

Luddy Student Ambassador, Indiana University Bloomington, IN **March 2021 - Present**
- Clearly communicate and present to potential new students and parents in a professional environment.
- Promote various academic programs in the Luddy School of Informatics, Computing, and Engineering.

Portfolio Website (Self-Taught), brandonzettek.com **January 2021 - Present**
- Used Jekyll and Github Pages to host a website that serves as a personal portfolio.

Undergraduate Instructor, Indiana University Bloomington, IN **August 2020 - January 2021**
ENGR-E 101: Engineering Innovation and Design
- Instructor for an undergraduate class of over 70 students.
- Primary emphasis on teaching students the basics of the Python programming language in a Linux environment.
- Secondary emphasis on engineering design by helping students use 3D printers and laser cutting machinery.

PROJECTS AND RESEARCH

Machine Learning Cloud Application **April 2021**
- Created a REST API, so the user could access data from the intended model.
- Used a virtual machine to deploy the application globally so it could be accessed by anyone.
- Created an application with Flask and then used Docker to package the application for scalability.
- Utilized Python to predict the attendance of a college football game using a machine learning algorithm.

Nation Security Agency (NSA) Cybersecurity Research **April 2021**
- Developed C and Python code to analyze entropy and provide statistical analysis.
- Studied random number generators and how they provide entropy to systems using Raspberry Pi's.
- Debugged the Linux Kernel to understand the underlying mechanisms of low-level operating systems.

PRESENTATIONS, PROCEEDINGS, AND PAPERS

Chai, A., Patel, D., Schaefer, S., Yu, T., **Zettek, B**. (2021) *Entropy Sources Of The Linux Pseudorandom Number Generator.* Co-wrote and presented research findings to members of the NSA remotely during COVID.