Eric Baker

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EDUCATION

Bachelor of Science in Computer Engineering
The Pennsylvania State University, State College, PA
Minor in Cybersecurity [Graduating: December 2020]

NSW, Australia - Semester Exchange *2019*
University of Wollongong
China Study Abroad - Penn State *2017*

WORK EXPERIENCE

Software Engineer Intern - *Siemens, Atlanta, GA* *2020*

Created tools and features to improve functionality of VersiCharge electric vehicle charging stations (EVCS).

➢ **Firmware Upgrade Tool:** Built a cross-platform desktop app that any employee can understand and use.
  - Minimized time and complexity of firmware upgrades (Previously required 10-pages of technical instructions).
  - *It will be included in the current field-configuration tool that customers and employees use.* [Node.js / Electron]

➢ **Voltage Log Parser:** Created an app that can cut employee VersiCharge test log evaluation time by over 70%.
  - Summarized test log outputs of up to 1000 lines into JSON files of under 50 lines. [Node.js / Electron / Angular]

➢ **Network Discovery Tool with Modem Script:** Decreased workload by helping to automate VersiCharge modem setup and enabling device-to-device communication between them. [Python / Shell]

Software Engineer Co-Op - *Diebold Nixdorf, Canton, OH* *2018*

Improved usability of company technology and developed proof of concept applications for various devices.

➢ **Bluetooth Text-to-Speech System:** Provided visually disabled people access to company machines via smartphone. Built a client application, BT server, and Windows service. [Java / Python / C#]

Software Development Intern - *Dalian Fuyou Enterprise, Dalian, Liaoning, **China*** *2017*
  - Streamlined our team's financial analysis by automating data plotting and manipulation. [Python]
  - Taught Dalian Fuyou workers English and tutored more than 20 students of all ages at local schools each week.

Engineering Research Assistant - *Penn State College of Engineering, State College, PA* *2017 – '19*

Co-author of a publication in the Journal of Engineering Education, as well as contributing to two others.

➢ **Erickson Discovery Grant ($3,500) - Social Media Sentiment Analysis:** Provided a graduate student quantitative support for their master's thesis. Integrated TensorFlow Machine Learning and Natural Language Processing (NLP) techniques to perform sentiment analysis on data collected with a web scraper. [Python]

➢ **CERI Research Scholarship ($1,500) - Discourse Evaluation Script:** Automated a task to complete in seconds, saving 100+ hours by leveraging Python's NLP capabilities to parse hundreds of files into usable data.

PROJECTS

➢ Adobe Acrobat Pro replica [Node.js / Angular]
➢ Self-checkout Age Verification app [SQL / HTML / C]
➢ Flight Tracker/Scheduler GUI [Java / JDBC]
➢ Resume Grader app (Similar to ATS) [Python]
➢ Cache Simulator with Performance Analysis [C / C++]

RELEVANT COURSEWORK

  - Data Structures and Algorithms
  - Object-Oriented Programming
  - Operating System Design
  - Communication Networks
  - Signals & Systems / Circuit Design

INVOLVEMENT

  - Engineering Orientation Network (EON) Mentor
  - National Organization for Business and Engineering (NOBE)
  - THON Committee (Student-run Philanthropy) Member

AWARDS

$6,500 - CIEE & Penn State Scholarship
$3,500 - Philadelphia City Scholarships
$2,000 - Summer Success Scholarship

TECHNICAL SKILLS

Proficient: Python ♦ C / C++ ♦ JavaScript ♦ HTML / CSS ♦ Java ♦ Scheme ♦ Git ♦ Unix Shell ♦ Node.js
Familiar: SQL ♦ C# ♦ JDBC ♦ MATLAB ♦ RESTful APIs ♦ PHP ♦ Verilog ♦ VHDL ♦ Electron ♦ Angular
Related: Django ♦ AutoCAD ♦ SolidWorks ♦ MultiSim ♦ FPGAs ♦ Cloud-Computing (AWS) ♦ Agile / Scrum