Christopher M. Beam

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Objective

To find a challenging position that utilizes my computer science experience and allows me to continually learn new things

Education

Bachelor of Science in Computer and Information Sciences – Messiah College – Mechanicsburg, PA
Bachelor of Arts in Mathematics – Messiah College - Mechanicsburg, PA

- **Magna Cum Laude**   • **Dean's List** (all 8 semesters)   • **Honor's Program Graduate**   • **Sigma Zeta Honor Society**

Relevant Courses

- Data Structures and Algorithms
- Database Concepts and Applications
- Discrete Mathematics
- Elements of Computing Systems
- General Physics with Calculus
- Geometry
- Intro to Real Analysis
- Linear Algebra
- Linear Systems (Signal Processing)
- Microprocessor Applications
- Multivariable Calculus
- Operating System and Computer Architecture
- Principles of Macroeconomics
- Statistics for Mathematical Sciences

Applicable Skills

Programming Languages

JavaScript (ES6, TypeScript), Java, Python, HTML, CSS, C/C++, Scheme, Prolog, Ruby, minimal C#, and Assembly (HCS12)

Programs, Applications, IDEs, Frameworks, and Operating Systems

Polymer (Web Components), Chrome DevTools, VS Code, Bash scripting, gulp, npm, Eclipse, Python IDLE, Maple, Minitab, NoSQL, Ember.js, Node.js, Firebase, SQL, Git, Chef, SalesForce, Vagrant, WordPress, and VirtualBox

Related Experience

Software Developer – Katapult Engineering – May 2016 to July 2017

- Used Three.JS and WebVR to create a 3D modelling app that allows people to navigate their katapultPro data in VR (with Google Cardboard, HTC Vive, and Oculus Rift devices)
- Helped upgrade an entire software suite (now called katapultPro) from deprecated Polymer 0.5 to Polymer 1.x
- Designed a feature that allowed for automatic cropping of calibrated images to create a photo library of items of known size
- Wrote an export tool to convert data from Firebase into Osmose's O-Calc files for OSP pole loading analysis
- Built a Trello-like application to keep track of the jobs in katapultPro that companies are currently working on
- Created a Quality Control feature in our software that checks for data entry errors in our collected and processed OSP jobs
- Wrote Node.JS script to parse through a database backup (2.5 GB +) to find deleted records and restore them back to Firebase
- Managed AWS instances where we have Node.JS servers running cloud functions and an S3 instance for uploaded content
- Collaborated on a 4-person 12-hour hack-a-thon to create a Unity VR application (for the HTC Vive) to demo the future usage of our software using virtual reality and 3D rendering of our data at the ISE Expo

Software Development Intern – Cure International – February 2016 to May 2016

- Contributed to Cure's open source HospitalRun web application by adding localization support (i18n) to application modules
- Ported an Incident Reporting module into the HospitalRun software suite of health care modules
- Directed a meeting with Cure's administrative leaders to step through the features and use cases of the Incident Reporting tool
- Promoted open source to Messiah College's Computer Science Department to encourage students to contribute while they learn

Intern Network Administrator and Desktop Support – Swift Capital – May 2015 to August 2015

- Helped migrate a multi-node local Exchange server to Rackspace's Hosted Exchange service
- Explored implementations Chef to manage the provisioning of new servers, workstations, and DevOp environments
- Helped plan a local network to properly utilize a brand-new blade server system for continuous integration of our software
- Wrote some Python and PowerShell scripts to help automate some server maintenance tasks
- Used Vagrant and VirtualBox to spin up arbitrary, on-demand VMs to test Chef (Ruby) config scripts

Student Computer Services Technician – Messiah College – August 2013 to May 2016

- Provided effective and friendly customer service to students and faculty
- Created an executable program that installs a bundle of Messiah College programs on student Windows computers
- Constructed and developed a library lookup computer kiosk from scratch using Ubuntu, Privoxy, and Chrome

Programming Team – Messiah College – February 2013 to May 2016

- Optimized programs to use the best data structure and algorithm for the specific problem and its requirements
- Implemented Dijkstra, DP, and greedy algorithms to solve problems in regional and local competitions
- Placed 39th out of 185 teams at the 2015 Mid-Atlantic ACM International Collegiate Programming Contest

GitHub Account

LinkedIn Profile