Henry Burns

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Education

Binghamton University, State University of New York   *Vestal, NY*
B.S. in Computer Science   *Expected May 2021*
    GPA: 3.63 | Upsilon Pi Epsilon

Skills

Languages: C++, C, Java, Python
Technologies: Vim, Git, Linux, Selenium, OpenCV, ROS, Windows
Personal: Communication, organization, teamwork, leadership, critical thinking

Professional Experience

Google   *Sunnyvale, CA*
Engineering Practicum Intern, Linux kernel memory management team   *May 2019 – Aug 2019*
- Contributed 8 patches fixing race conditions to the open source Linux kernel, improving stability and reducing fragmentation
- Wrote Google internal unit testing for zswap correctness and page migration using Python and C
- Backported 20 bug fixes and new features from upstream Linux to Google's internal Linux implementation

Aventine Properties LLC   *Huntington Station, NY*
Software Engineering Intern   *June 2017 – Aug 2018*
- Automated the collection of assessment information on over 160,000 properties in the town of Brookhaven
- Retrieved over 8,000 assessment review cases using Python's Selenium API, saving over 600 man hours of work
- Wrote a Python script to back up essential databases to the cloud, replacing physical backups

Binghamton University Information Technology Services   *Vestal, NY*
Residential Computer Consultant   *Aug 2018 – Present*
- Troubleshoot and resolve problems for a building of more than 300 students
- Utilize knowledge of computer networks, operating systems, and malware removal to troubleshoot technical problems
- Record and relay widespread problems to the technology center, resolving widespread outages

Projects

IEEE Mars Rover Project   *C++*
- Created a C++ program to receive, decompress, and render JPEG data using SDL2 and turbojpeg   *Sept 2017 - Present*
- Constructed a 3-D model of surroundings based on two images using the C++ libraries ROS and OpenCV

Course Sniper Project   *Python*
- Developed a Python script using Selenium to automate the class registration proccess   *Dec 2017*
- Added email notification of registration status using Python's Sengrid API
- Created a system to handle additional class requirements

Leadership Experience

Association for Computing Machinery   *Vestal, NY*
Vice President   *Sept 2017 – Present*
- Create problems and solutions for monthly programming competitions with over 50 competitiors
- Design lesson plans for weekly meetings, explaining concepts like dynamic programming and backtracking
- Manage $2,000 budget, allocating funds for programming competitions and general body meetings

Dicinson Town Council   *Vestal, NY*
Vice President   *Sept 2017 – May 2018*
- Plan campus wide events, allocating over $4,000 of the budget to large scale community events
- Formulate and implement ideas to improve the overall quality of our residential dining hall
- Participate in weekly meetings to represent student concerns and solve community issues